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EMS:
AND VALUE

STORY; AND AS ILLUSTRATIVE
OF ART:

TO GEM COLLECTORS.

W. KING, M.A..

TRINITY COLLEGE, CAMBRIDGE.

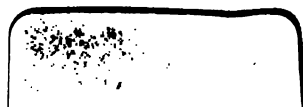
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ANTIQUE GEMS:

THEIR

ORIGIN, USES, AND VALUE

AS INTERPRETERS OF ANCIENT HISTORY; AND AS ILLUSTRATIVE
OF ANCIENT ART:

WITH HINTS TO GEM COLLECTORS.

By **REV. C. W. KING, M.A.,**

FELLOW OF TRINITY COLLEGE, CAMBRIDGE.

*Protonis aspectus et in pretium coacta rerum naturae maiestas in duos
nulla unquam imitabilem.*—*Phil. Nat. Hist. xxxvii. 1*



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ΑΛΛΗΓΕ: Καρσοο. Πλασμα.

P R E F A C E.

PROBABLY at no period in England has art in its various relations been so intelligently illustrated and so fully investigated as during the last ten years. The numerous exhibitions of works of art, both in this country and on the Continent, have doubtless partly contributed to this result; and with increased development of taste there has sprung up at the same time an earnest desire to investigate the principles of ancient art in its various productions, and to trace the different phases through which it has passed before it attained its highest degree of excellence. Every department of art, both ancient and mediæval, has found its expositor or historian; and the amateur or student who desires to make himself acquainted with the painting, sculpture, or pottery of ancient or mediæval times, can at once be referred to able treatises which will furnish him with the fullest information on those and kindred subjects. But there is one department of art in which the ancients peculiarly excelled, and of which

they have bequeathed us the most exquisite specimens of their genius and skill, which has been comparatively neglected in this country, or at least has not received the attention due to its importance: I mean their Engraved Gems. It may with truth be asserted that there are few remains of ancient art so replete with grace and beauty as the engraved gems of antiquity; and when we take into consideration the important uses they have subserved to the historian, archæologist, and artist, it seems unaccountable that this valuable branch of art should have been so long neglected; yet it is a fact that there does not exist in our language any scientific treatise or popular manual to which the student can be referred who is desirous of entering upon the study of this most instructive subject. Of this I can speak from experience, for on myself commencing the study of antique gems several years ago, during a long residence at Rome and Florence, though with ample opportunities of gaining practical information as far as regards the gems themselves, I felt greatly the want of some manual to guide me, not merely in the first principles and the history of the glyptic art (which has been attempted, though very sketchily, by Millin), but of one that should, to some extent at least, serve to guard me against the usual errors into which beginners fall, and one which should supply, as far as possible, that experience to obtain which practically, we must, as Goethe says, pay many a heavy apprentice-fee. Hitherto, as far as my reading has gone, nothing of the kind has been attempted in our language, except in the excellent series of essays, entitled 'Old Rings,' which appeared in 'Fraser's Magazine' during the year 1856; and the standard work has remained the 'Pierres Gravées' of Mariette, published more than a century before. The books named in the list of authors given at the end of this volume furnish indeed

many valuable hints, but these are dispersed through voluminous treatises, and are only to be selected, with profit to himself, by a reader already to some degree conversant with the practical details of the science. I have therefore here put together my own observations, the accumulated memoranda of many years, and the results of the careful examination of many thousands of gems of all ages and of every style. These I have illustrated by passages from ancient authors, and by copious extracts from other sources, tending to elucidate the matters herein discussed. This book had in fact its first origin in a series of notes jotted down in my pocketbook whenever a gem of particular interest came under my inspection, or whenever any passage of the author I chanced to be reading contributed at all to the explanation of the difficulties that beset my entrance upon this study; so that it may be described as a series of solutions of the numerous problems which the incipient gem-collector has hitherto been obliged to work out for himself, at a vast expenditure of time, temper, and money. Most of these translated passages will be found given at length (though occasionally but in part bearing upon or illustrating the point under consideration) whenever it appeared to me that they would lose their interest by curtailment. Many repetitions will be found in the course of these pages, and these I have allowed to remain in revising the sheets, in order to make each article, as it were, complete in itself, this treatise being chiefly designed for a book of reference, to be consulted by means of the copious index annexed. Thus by the aid of these repetitions the reader will to some degree be spared the trouble of referring from one article to another, since many of them may be considered as independent essays, in each of which the particular subject discussed, together with everything bearing upon it, has been worked out to the best of my ability, and according to the extent of the materials

at my disposal. The various disquisitions upon coins and coin-dies may at first sight appear foreign to the professed design of these pages ; but as they were indisputably the productions of the same class of artists as the engravers of the gems, and are, besides this, almost the sole means we have of determining the date of the gems with which they coincide in the identity of workmanship and of treatment, it seemed unadvisable to pass them over without some slight consideration. The long series of extracts relative to the mediæval superstitions as to the powers of gems and of their "sigils," absurd as they may seem to the ordinary reader, are yet of great interest to the student of the history of the Middle Ages ; for in the writers of that period allusions to such ideas are of frequent occurrence, and are hardly to be understood without some previous acquaintance with this belief, at that time an established article of faith. The 'Lapidarium' of Marbodius, besides its interest as the earliest didactic poem since the classic times, was for five centuries the received text-book on mineralogy for all the students of Mediæval Europe ; and, together with the extracts from Orpheus and Pliny, completes the chain of the ancient writers on stones from Theophrastus the founder of the science.

The very extensive and interesting class of Gnostic gems has never hitherto been treated of in any English work that has come in my way, except in the brief sketch by Dr. Walsh, itself little more than an abridgment of the 'Apistopistus' of Macarius. I have therefore bestowed a considerable amount of care upon this portion of the treatise, and have described in detail all the most interesting types that have passed under my examination. In the course of my researches for intagli belonging to the latest period of the art, I have been fortunate enough to meet with authentic notices of many of great interest, and executed some centuries after the date

usually assigned to the complete extinction of gem-engraving in Europe. Of these, full descriptions will be given in the appropriate sections.

The treasures of ancient art in Great Britain, as seen in its great national museum and in the residences of private individuals, will probably bear comparison with those of any other country in Europe in magnitude and interest, and perhaps in no class of antiquities is it richer than in antique gems. The collection in the British Museum, though scarcely on a par, numerically speaking, with its other monuments of ancient art—its statues, vases, bronzes, and coins—is nevertheless of great value and importance, containing as it does specimens of the finest and rarest types of gem-sculptures, as I shall presently take occasion to show in a chapter specially devoted to this collection; but by far the greatest number of these miniature monuments of art are to be found in the cabinets of our noble and wealthy amateurs. Besides the large and valuable collections of the Dukes of Marlborough and Devonshire, Lord Londesborough, Messrs. Pulsky, Rhodes, Uzielli, &c., there exist numerous smaller collections, varying in number from one hundred to two hundred gems, scattered over the length and breadth of the land, in which are to be found, buried as it were from the world of connoisseurs, many of the choicest relics of the glyptic art. Indeed there are few Englishmen of refined and cultivated taste, versed at the same time in the literature of Greece and Rome, who have resided or travelled in classic lands, who have not brought home with them some of these miniature memorials of the genius and skill of the ancient artists of those countries. Nor can we be surprised when we consider that not only is a refined and cultivated taste required for a just appreciation of these interesting relics, but a familiar acquaintance with the myths and legends, historic events, manners and customs of Greece

and Rome; and when these qualifications are combined in any one, then will he be able fully to admire the wonderful force and beauty with which the ancient gem-engraver has contrived to represent, upon the most limited area, those scenes and actions with which he is so familiar, and which he is able to recognise at a glance. Such a one, too, is prepared to survey with admiration and interest the portraits of those distinguished men whose words and deeds history has handed down to us, and whose features have been reproduced and perpetuated on the imperishable gem. Various other reasons may be assigned for the great number of fine antique gems which have found their way into the collections of this country. The frequent revolutions and political commotions which have disturbed the continent of Europe have rendered England the asylum of many deposed princes, and of innumerable political refugees. Some of these have brought with them cabinets of gems, and others a few rings, which from their portability would naturally be laid hold of at the moment of their flight in preference to more cumbersome valuables; and these, in their hour of necessity, the owners being compelled to part with, have been readily secured by the amateurs of this country. Hence it has been remarked by foreigners that there is no capital in Europe in which a collection of gems can be formed in so short a time as in London.

It is not my design in this work to describe or even to briefly notice the gems to be found in the principal collections of Europe, as such an undertaking could not be brought within the compass of a single volume. I have restricted myself, as I may here explain, in the selection of the various types and characteristics of gem-sculpture, principally, though by no means exclusively, to the Herz and the Mertens-Schaafhausen Collections—the former as being the best known in this country, and the latter as the one to which I

have had constant access through the kindness of the present possessor, and which, from its vast extent of nearly two thousand stones, comprises examples of every period of style and art. I have nevertheless deemed it advisable to insert a brief sketch of the more remarkable gems in our great national collection, both because there is no published account of them, and that they are probably less known to the public than any other class of its ancient treasures. I shall also devote a few pages to the consideration of the finest works of the Devonshire Collection, as there exists no catalogue raisonné of this celebrated cabinet. The Marlborough Collection has been more fortunate in this respect, the choicest of its contents having been described and figured in two of the most magnificent volumes ever published, the pencil of Cipriani and the graver of Bartolozzi having been engaged for its production. Mr. Pulsky's fine collection may now also be claimed as one of our English treasures in this department, as he has for so many years resided and collected amongst us. It has afforded me several fine examples of important classes of both camei and intagli. The very extensive and valuable cabinet of gems belonging to Mr. Uzielli has been formed chiefly by the selection of the choicest stones from the Herz Collection, and further augmented by the addition of many precious camei, lately acquired in Italy.

These descriptions, observations, and extracts will be found arranged according to a long-considered system of my own, under certain general heads, thus divided :—

Section I. Materials: gems themselves.

II. Art: the different styles.

III. Subjects.

IV. Mystic properties of gems and of their sigils.



Plato, contemporary portrait. Sard.

INTRODUCTION.

ON THE STUDY OF ANTIQUE GEMS.

ALL persons who have had any practical acquaintance with the subject of Antique Gems are agreed as to the important assistance which this class of relics of ancient art affords to the artist, the antiquary, and the historian, in their respective departments. In the first point of view, these small yet indestructible monuments preserve to us exact representations of the most celebrated works of the ancient sculptor, long since either destroyed, or else lost to the world. There is no doubt that every ancient statue, either of especial sanctity, or of great celebrity on account of its artistic merit, was faithfully reproduced in the miniature work of the gem-engraver, with that honesty of treatment so justly pointed out by Goethe in the passage hereafter to be quoted. Thus, in the poetical description, by Christodorus, of the seventy-two antique masterpieces in bronze that adorned the Gymnasium of Zeuxippus in the 6th century, the choicest selections from the plunder of the Hellenic world, we recognise at the first glance the originals of many of the representations only preserved to our times by the means of their copies on gems of a slightly later period than that of their own production. The Apoxyomenos of Callicrates, which was pronounced the "Canon" or model of statuary in bronze, but which, together

with almost all the other works in that metal, has perished in the times of barbarism, is allowed by all archæologists to have been the original of the famous intaglio in the Marlborough cabinet, an athlete using the strigil, itself also classed amongst the finest engravings known. The Apollo Delphicus too, supporting his lyre upon the head of a Muse by his side, a subject often reproduced without any variation, and usually in work of the greatest excellence, is incontestably the copy of some very famous and highly revered statue of this deity, then in existence. Again, amongst the Mertens-Schaafhausen gems my attention was attracted by a singular design, the same god armed with his bow and arrows in his one hand, and with the other holding the fore-feet of a stag standing erect: the whole composition betokening an archaic epoch. There can be small doubt but that this little Sard has handed down to us a faithful idea of the bronze group by the early statuary Canachus, which from its singularity was accounted the chief ornament of the Didymæon at Athens: an Apollo thus holding a stag, the hind feet of which were so ingeniously contrived by means of springs and hinges in the toes, that a thread could be passed between them and the base on which they rested, a mechanical *tour de force* thought worthy by Pliny of particular mention.



Apollo of Canachus: Roman. Sard.

In the same manner we obtain representations of noteworthy edifices long since reduced by time into heaps of

undistinguishable ruins. Again, if we consider the merits of the engravings as works of art, we have in them perfectly preserved examples of the taste and skill of those ages when the love of the beautiful flourished in its fullest extent, unfettered by prejudice, tradition, or conventional rules; whilst, from the unlimited demand during those ages for engraved gems, both for the use of signets and for personal decorations, artists of the highest ability did not disdain to exert their skill upon the narrow field of the precious stone. The unparalleled perfection and vigour of many of these performances are a sufficient proof that they proceeded directly from the master-hand, and were not mere slavish copies by a mechanic after the design supplied to him by the genius of another. Besides this moral proof, we have the direct testimony of Pliny (xxxv. 45) that such a distinguished modeller and statuary as Pasiteles also employed himself in the chasing of metals and in engraving upon gems. This artist, one of the latest lights of the Hellenic art, was a native of Magna Græcia and a contemporary of Varro, who highly praises his skill. On the revival of learning, antique gems were amongst the first relics of better times to claim the attention of men of taste to their intrinsic beauty, and to the perfection of the work displayed upon them, and no longer as objects merely to be prized, as in the preceding centuries, for their fancied magical or medicinal virtues. Hence, amongst the other measures taken by Lorenzo dei Medici towards fostering the dawning arts of design, we are informed by Vasari that he established a school in his gardens exclusively appropriated for the instruction of students in gem engraving, and for the execution of similar works in emulation of those ancient treasures which he so zealously accumulated. The large number of magnificent Camei marked with his name, LAVR. MED., still preserved in the

Florentine Cabinet, notwithstanding the yet larger proportion scattered over the other collections of Europe in consequence of the subsequent revolutions of that commonwealth, attest to our times the eagerness with which he sought after these relics of ancient skill, and the high importance which he attached to their acquisition. They were in truth, at that period, before many antique statues or bas-reliefs had been brought to light, the sole means of obtaining perfect and satisfactory examples of the artistic excellence of the Greek and Roman ages. And in no other department was this prince more successful in raising up a school of skilful artists than in this particular one, for the early Italian Camei approach so closely to the Roman, both in spirit and in treatment, that to distinguish between them often baffles the most extensive experience and leaves the real date of the work a matter of dispute and of uncertainty. But fifteen centuries before the days of Lorenzo, his illustrious prototype Mæcenas had regarded this same branch of art with especial favour, and has left striking evidences of his predilection for its productions in the scanty fragments of his writings; and, as a general observation, it will be found that, the more extensive the knowledge of the man of taste in the other lines of creative art, the more readily will he appreciate the distinctive excellences of this one in particular; as is clearly shown by the remarks of Goethe when this to him entirely new field first opened on his view. For none but smatterers in art ever estimate the value of a work by the rule of its dimensions; the man of true taste only looks at the mind displayed in the production, not at the extent of surface over which its result may be diffused. The feeling which induces the pretender to taste to slight the genius embodied within the small compass of the gem, merely on account of its minuteness, is the same in its nature as that

which has prompted all races, as well at the dawn as at the decline of the fine arts, to erect monuments which aim at producing effect by their magnitude alone. Pausanias observes satirically that, "only Romans and Rhodians pride themselves upon the possession of colossi," whilst the masterpieces of Greek skill rarely exceeded the size of life. And thus, Cellini, piqued by a remark of M. Angelo (made on seeing a small medallion of Atlas, chased by the former) "that an artist might very well be able to excel in such small designs and yet be incompetent to produce any work of merit on a grander scale," in order to demonstrate the falsity of this unjust assertion, immediately set about the model of his famous Perseus, which most judges will probably agree in considering as superior to any statue left us by his overweening critic.

It has been very justly observed by the author of 'Thoughts on Antique Cameos and Intaglios' that, although the work on gems, whether in relief or sunk, be confined to a very narrow space, and though, by reason of its necessary minuteness, it make not the direct, immediate, and powerful impression upon the imagination and affections which is felt when we behold figures of life or above life-size, in high or low relief, or when given to the eye on pedestals as statues, still it remains an unquestionable fact, that in all that relates to anatomical truth, expressiveness of attitude and aspect, gracefulness of drapery, and every other detail and accompaniment of fine workmanship, the Greek, Sicilian, and Roman artists were eminently distinguished, and especially in that simplicity of contour and composition and masterly ordonnance that have ever made the study of antique gems so serviceable for the settlement of the principles and the improvement of the practice of painting and sculpture. Hence the lovers of the fine arts, and especially artists

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themselves, may discover the importance of the study of the antique in this particular branch of workmanship. For herein, says Mariette, knowledge is brought under the dominion of a noble and lovely simplicity, which suffers nothing to be brought before the eye but what is required for the elevation of our ideas. And to the same effect is the remark of Gori: "What is there more pleasant than the contemplation of the works of the artists of antiquity, and to behold, shut up as it were within the narrow compass of a small, it may be of a very small gem, all the majesty of a vast design, and a most elaborate performance? The art of engraving figures upon these minute stones was as much admired by the ancients as that other sort of laborious skill which produced full-sized statues out of bronze or marble. It may even be said that gems in their eyes were of greater value by reason of the extreme smallness of the stones, and a hardness that defied the steel tool, and submitted to nothing but the power of the diamond."

In short, it may be safely affirmed that the gem engravers of the Alexandrian and Augustan ages were, in all that concerns excellence of design and composition (that is, in all those parts and principles of their art that admit of comparison), rivals of the most famous workers in marble and in bronze, however large the dimensions of their works, or perfect the finish of their workmanship. These wonderful artists contrived to enclose within the narrowness of a little agate-stone all the complicated details of an event in history, or of a fable in mythology, and to make them stand forth in beautiful relief as a Cameo, or to sink down as beautifully into depth as an Intaglio, with all that truth of design and power of expression which characterise the excellence of the largest works of the most consummate masters. Great indeed must have been his taste and talent, his power and patience,

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who could make a small-sized Onyx or Carnelian bear on its surface or within its substance all those realities of place, person, or thing, which belong to historical events or fabulous traditions. It is Seneca's observation (suggested probably by the sight of some production of the gem-engraver's skill), that to enclose a whole within a small space is the work of a great artist. The remark of Sir Joshua Reynolds may also be cited on this point, as to the importance of making this whole congruous and consistent. "Excellence," says he, "in every part and in every province of our art, from the highest style of history down to the resemblances of still-life, will depend upon this power of extending the attention at once to the whole, without which the greatest diligence is vain." The gem-artists of antiquity, besides their other claims to our admiration, had regard to uniformity of design, to congruity and consistency throughout the entire work ; they took care that all its parts were well fitted, and compactly distributed and disposed, and *that* also in all their fulness and effect.

To the archæologist, or the inquirer into the usages of domestic life amongst the ancients, engraved gems are invaluable authorities, supplying as they do the most authentic details of the forms and construction of innumerable articles connected with the uses of war, of navigation, of religious rites, of the games of the circus and the arena, and of the festivals and representations of the stage, with the costume, masks, and all the other accessories of the scenic performance. Let any one, though totally unversed in this department of antique knowledge, cast his eye over a good collection of impressions from gems, and he will be both surprised and delighted, if a classical scholar, to perceive how much light is thrown upon ancient customs by the pictures which will there faithfully offer themselves to his view. There he will see the various pieces of the armour of the ancient Greek or Etruscan war-



rior, carefully made out in their minutest details; the obscure subject of the construction of the ancient trireme has been principally elucidated by the representations thus handed down to our times, whilst the various exercises, scenes, and games of the palæstra, the theatre, and the circus, will be found abundantly illustrated by the most instructive examples. To take but a single instance out of the innumerable list that might be quoted, the hydraulis and the mode of performing upon it, of which no accurate notion can be extracted from the long and obscure description of its construction given by Vitruvius, are both plainly shown upon a plasma of Roman date, lately in the Herz Collection, but since fortunately secured for the British Museum.



Vizored Helmet: Etruscan. Sard.



Macedonian Helmet. Agate.

Again, if we consider these gem-pictures in their relation to classic mythology and fable, we shall discover many obscure accounts left us by ancient writers on these heads, to be eked out and rendered intelligible by the means of these authentic remains of the creeds and ideas to which they refer; instances of which will be met with plentifully diffused throughout the course of these pages. Thus, the new religions of mixed origin that flourished under the Roman Empire, the Mithraic, the later Egyptian, and the various forms of Gnosticism, cannot be properly studied without a constant reference to these genuine illustrations of their doctrines; since the only written documents concerning them have been transmitted to us by either ignorant or prejudiced

adversaries, whose sole object was, to heap as many foul charges as they could collect or devise upon the members of rival sects. This is sufficiently apparent if we compare the strange discrepancy of the notices of the Gnostic belief generally, as given by the Catholic Fathers from whom I have quoted in the section upon its monuments, and the illustration of the actual doctrines so plainly set forth in the talismanic intagli engraved at the time for the use of these religionists. As for the mysterious Mithraic worship, scarcely any other source exists from which trustworthy information as to its true nature can be gathered, except from the gems, cylinders, and bas-reliefs still existing in such abundance, in spite of the careful destruction by its opponents of all the larger objects of the adoration of its votaries.

The disputed chronology of the annals of Egyptian history has been already to some extent, and will doubtless, at some future period, be yet more fully elucidated by the aid of the numerous scarabei and tablets bearing the names and titles of the kings, whenever a more satisfactory mode of interpreting their hieroglyphical legends, than the present conjectural method, shall have been discovered and applied to their investigation. These memorials will then do for the dynasties of Egypt that service already done by the light of their medals for the histories of the Greek, Roman, and Sassanian monarchs. As it is, the present almost universal mode of reading every hieroglyphic legend as though relating to Thothmes III. reminds one of the common mistake of persons not conversant with ancient coins, who attribute every Roman medal to Augustus because they see the letters AVG impressed upon it.

Again, when we arrive at the period of the full development of the glyptic art, we find a series of the most interesting representations opening upon us; and one which includes,

besides gods, heroes, and emperors, other world-famed personages, poets, philosophers, and warriors; portraits of whom, as not occurring necessarily upon medals, we should otherwise be entirely deprived of, or else have the want but inadequately supplied by a defaced or dubious bust or statue. And the intaglio possesses a most important advantage over the medal in the perfect indestructibility of its impress, which no time, no wear can efface, and nothing destroy, except the utter comminution of the stone itself. Medals, on the contrary, from the high relief of their surface, and the unavoidable friction of commerce, as well as from the action of the earth upon them, frequently disappoint our expectation as to the effectiveness of the portrait they bear impressed; and besides this, they were seldom executed with the same degree of care as the costly intaglio cut on the valuable gem for the signet of the sovereign himself, or of that person of undying name whose "counterfeit presentment" it has preserved to remotest ages.

But all the pleasures and advantages to be reaped from this study have been admirably set forth by the "many-sided" Goethe, in his observations on the collection of Hemsterhuis, of which I subjoin a translation, as a most complete summary of all that can be said on the subject, and a most suitable conclusion to these prefatory remarks.

Before this, however, a few words may be permitted upon the causes of the decline of the taste for antique gems in our own age; for it is a singular fact, considering how completely this taste had become extinct in England during the last forty years, that at no previous period had it prevailed to such an extent, both here and in the other parts of Europe, as during the last half of the preceding century and the commencement of the present. Never before had camei of importance fetched such extraordinary prices (witness the fragment ascribed to Apollonides, and purchased by the Duke of

Marlborough from Stosch for 1000 guineas) ; and the principal gems of the cabinets formed during the same years are known to have been acquired at sums falling not far short of the above in magnitude. I have lately seen a cameo of Roman work, and that by no means of the highest order, a Roma crowned by Victory, for which the Empress Josephine, herself a collector, paid 10,000 francs ; and at her command Denon, then Director of the Musée Impériale, selected from the gems there preserved a sufficient number to form a complete parure for the wear of this unfortunate lady, the very impersonation of refined and elegant extravagance. These gems, although mounted in a suite of ornaments intended, from their origin, to form a part of the crown jewels of France, never reverted to the Paris Cabinet of Antiques after the fall of the Empress, but were subsequently to her decease dispersed amongst the various collections of European amateurs. It is to be hoped that Denon had reconciled his duty with his loyalty by selecting those camei which were more recommendable by the beauty of the material than by the perfection of the work. At this same date also the art itself had reached the highest point to which it has ever attained since its revival ; for it is within this same space of some fifty years that we meet with the names of Costanzi, Rega, Pikler, and Marchant ; and never before was skill in this profession so profusely rewarded, instances of which will be found adduced in the notices hereafter given of these engravers.

Many causes, however, may be assigned for the sudden decline of the passion for collecting gems among the wealthy classes of this country : one of considerable influence was, without dispute, the uncertainty introduced into the study by the unlimited fabrication of professed antique works, and by the forging of the artists' names, a species of fraud now first introduced, or at least extensively practised, and of which the

Poniatowsky collection may be cited as the most glaring example. And this was a deception extremely difficult of detection ; and one by means of which amateurs of little experience were frequently defrauded out of immense sums. After Payne Knight, the acknowledged chief of English archæologists, had been so notoriously taken in by the famous "Flora" of Pistrucci, all the others began to lose confidence in their own judgment, and refused to expend thousands in the purchase of "antique" works, the living authors of which might possibly come forward, as Pistrucci did, to assert their own claims to the honour of having produced them. And no other branch of archæology demands the union of so many qualifications in the collector to enable him to advance on tolerably safe ground in making his acquisitions, seeing that a knowledge of mineralogy, of the mechanical processes of engraving used at different periods, as well as an accurate discrimination of the respective styles of art, and, above all, the constant examination of large numbers of all descriptions of engraved stones, are absolutely indispensable before proceeding to the commencement of a collection which is intended to possess any real value. All these causes, together with the other drawbacks to the pleasure of this pursuit, enumerated in Duke Ernst's letter to Goethe, respecting the proposed purchase of the cabinet of Hemsterhuis, powerfully operated towards the discouragement of this study, both on the Continent, and, more especially, in this country.

Last, but most powerful of all, came the revival of the taste for mediæval art ; beginning with the study of its architecture, and thence naturally diverging into an exclusive admiration of the smaller productions of the same school in metal-work, and wood and ivory carvings ; objects of a character so much more adapted by their quaint grotesqueness and barbarous vigour to captivate the unrefined taste of

the amateurs of northern climes; and where a sufficient amount of knowledge to avoid any very damaging mistakes may be obtained with but little trouble, or natural sagacity, or acquired experience. It is satisfactory to observe how much more at present the attention of collectors is again being directed towards these little monuments of perfect taste, treasures only to be truly appreciated by the educated and practised eye; and how rapidly the mania is ebbing for the acquisition of the Gothic monstrosities so much sought after a few years ago. *Now*, when collections are brought to the hammer, the most ardent competition is displayed for the possession of the elegant art of the Renaissance as manifested in its majolica and bronzes; and thus the public taste is insensibly led back to the fountain-head of that very school—the study of the actual productions of classic times. This is shown by the great rise in the value of antique statuettes whenever they are offered for sale—objects in which is often displayed the utmost perfection of antique skill; and from the love of these a fresh appreciation of the importance of antique gems is rapidly springing up, as the vigorous competition amongst amateurs for the best gems of the cabinets lately disposed of abundantly testifies.



Prometheus making Man: Cameo. Onyx.



Anymane: Early Greek. Sard

GOETHE ON THE STUDY OF ANTIQUE GEMS.

“This estimable man (Hemsterhuis) had been led to strive indefatigably after both the Moral as regards the soul, and the Tasteful as regards the senses; and this with a sagacious acuteness peculiar to himself. If a person is to be thoroughly imbued with the former, then ought he always to be surrounded by the latter; hence for a private person who cannot go to the expense of large collections, but who yet is unable to dispense with his accustomed enjoyment of art, even when on a journey,—for such a person a cabinet of engraved gems is in the highest degree desirable; he is everywhere accompanied by the most delightful of all things, one that is precious and instructive without being burdensome, whilst he enjoys without interruption the most noble of all his possessions.

“But to attain this end it is not enough merely to *will* it; for the carrying it out, besides the money, opportunity above all things is required. This last was not wanting to our friend: living as he did upon the passage between England and Holland, by keeping watch upon the perpetual com-

mercial intercourse between the two countries, and upon the treasures of art constantly passing to and fro in that commerce, he gradually, by means of purchase and of exchange, had succeeded in forming a fine collection of about seventy gems, in doing which he had derived the most trustworthy assistance from the advice and interposition of that excellent gem-engraver Natter.

“Of this collection the Princess Galitzin had in great measure watched the formation, and thus gained knowledge, taste, and a liking for the pursuit; and at that time she was its possessor, as the bequest of a departed friend, who always appeared to her as present in these treasures.

“The philosophy of Hemsterhuis I could only make my own, together with its grounds and its ideas, by translating them into my own language. The Beautiful and the pleasure derived from it consists, as he expresses himself, when we behold and conceive comfortably the greatest possible number of images in one and the same moment. I, on the contrary, must assert that the Beautiful consists when we contemplate the normally Living in its greatest activity and perfection, by which we feel ourselves excited in a lively manner to the reproduction of the same, and also placed simultaneously in a state of the highest activity.

“Accurately considered, all that has been said is one and the same thing, only expressed by different persons; and I refrain from saying more, for the Beautiful is not so much a giver as a promiser. On the other hand, Ugliness, which has its origin in the stopping short of its end, of itself causes us to stop still, and to hope for, aim at, and expect nothing at all.

“Accordingly, I fancied that I could interpret his ‘Letter on Sculpture’ according to the above rule, consistently with my own sentiments; and further, his little work ‘On Desire’

appeared to me in this way intelligible ; for when the eagerly-longed-for Beautiful comes into our possession, it does not always make good in particulars what it promised in the whole ; and thus is it plain that the same thing which excited our desire as a whole will sometimes not thoroughly satisfy us in particulars.

“These considerations were so much the more important as the Princess had observed her friend to long eagerly for works of art, but to grow cold and weary in their possession ; a fact which he has himself expressed so charmingly and so cleverly in the above-mentioned little treatise. In such cases a person has really to consider the difference as to whether the subject is worthy of the enthusiasm felt for it ; if it be, then must pleasure and admiration always grow upon it, and perpetually renew themselves ; if it be not entirely so, then the thermometer sinks some degrees, and one gains in knowledge what one loses in prejudice. Hence is it certainly quite true that a person must *buy* works of art in order to understand them, so that the desire may be removed and the true value of the object established. Meanwhile, desire and its satisfaction must here also alternate with one another in a thrilling life ; they must mutually attack and release each other, in order that the man once deceived may not cease to pursue.

“However, it was often extremely agreeable to our party to return again after these æsthetic disquisitions to the consideration of the gems, and we were in truth forced to regard this as a most singular incident that precisely the very flowers of Heathenism should thus be treasured up and so highly valued in a Christian family.¹ I lost no time in

¹ The Princess is depicted by Goethe as the very pattern of the perfect Christian lady.

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discovering the most charming subjects of the compositions which sprung to meet the eye from out of these precious miniature representations. Here also no one could deny that copies of great, important, antique works, for ever lost to us, have been preserved like jewels in these narrow limits. Hardly any branch of art wanted a representative among them; in scarcely any class of subjects was a deficiency to be observed. The vigorous, ivy-crowned Hercules could not belie his colossal origin; the stern Medusa's head, the Bacchus formerly preserved in the Medicean cabinet, the graceful sacrifices, the Bacchic festivals, and besides all these the most valuable portraits of known and unknown persons, all obtained our admiration during oft-repeated examinations.

“From out of such conversations, which, in spite of their height and depth, ran no danger of losing themselves in the abstruse, a point of connection appeared to manifest itself between art and religion, inasmuch as all veneration for a worthy object is always attended by a devotional feeling. No one however could conceal from himself that the purest Christian religion must ever find itself at variance with the true creative art, inasmuch as the former ever strives to extricate itself from the objects of sense, whilst the latter recognises the sensuous element as its proper sphere of action, and is obliged to abide within its limits.

“Notwithstanding this, the subject of engraved gems could always be introduced as an excellent intermediary whenever the conversation threatened to flag. I for my part could indeed only appreciate the poetical part of the engraving, the subject itself, the composition, the execution, and pass judgment upon and praise these points alone; my friends, on the other hand, were accustomed to bring forward quite different considerations upon the same topic. For, in fact, the amateur who, having procured such treasures, shall

desire to raise his acquisitions to the rank of a respectable cabinet, must for his own security in his enterprise, not remain satisfied with the mere ability to understand the spirit and the sense of these precious works of art, and to delight himself therewith, but he must also call external proofs to his assistance; a thing which must be excessively difficult for one who is not himself a practical artist in the same department. Hemsterhuis had corresponded for several years with his friend Natter on this point, letters about which of great value were still preserved. In these, the first thing that came under consideration was the species of gem on which the work was executed, inasmuch as some stones were employed only in ancient, others again only in modern times; thus, too, a superior degree of finish was above all things to be kept in view, as a reason whence one might refer the work to a good period of art; whilst, on the other hand, carelessness of execution being sometimes ascribed to the taste of the period, as arising partly from incapacity, partly from negligence, furnished the means of ascertaining the earlier or later date of the work. Especial stress was laid upon the polish of the sunken parts, and the connoisseurs believed that they saw in this an irrefragable proof of work of the best period. But as to whether an engraved gem was decidedly antique or not, on *this* point no one ventured to lay down any fixed rules of judgment; even our friend Hemsterhuis having only been able to satisfy himself on this particular difficulty by the decision of that unrivalled artist Natter.

“ I could not conceal from myself that I was here entering upon quite a new field of observation, to which I felt myself very strongly attracted, and could but lament the shortness of the time of my stay, by which I saw myself cut off from the opportunity of directing my eyes as well as mind more

steadily upon the above-mentioned particulars. On one such occasion the Princess expressed herself with the utmost amiability and frankness, that she felt disposed to intrust me with the collection in order that I might study it at home in the company of my friends and of connoisseurs, and so be able to educate and ground myself in this important branch of art, by taking sulphur casts and glass pastes from the intagli."

This liberal offer Goethe at first declined, not wishing to take upon himself the responsibility of the charge in those times of trouble; however, at last the Princess obliges him to accept her proposal, and he carries the collection home with him to Weimar, where he re-arranges the gems in two cases in regular order, accompanied with casts taken from them to assist in their examination.

The following is the result of his long and careful study of this invaluable collection, which I give at length, without any fear of its being considered tedious, as it points out in a most clear and forcible manner the great artistic merit displayed in choice works of this description:—

"We found ourselves justified on internal grounds of art in pronouncing, if not all, yet by far the largest number of these intagli, to be genuine antique monuments of art, and indeed several were found among them which might be reckoned in the number of the most distinguished works of this kind. Some were conspicuous from the circumstance of their being absolutely identical with older casts of celebrated gems. Several others we remarked whose design corresponded with that of other antique intagli, but which for this very reason might still be accounted genuine. In very extensive collections repetitions of the same subject often occur, and we should be very much mistaken in pronouncing one of them to be the original, the others but modern copies.

In such a case we ought always to keep in mind the noble artistic honesty of the ancients, which thought that it could never repeat too often the treatment of a subject once successfully carried out. The artists of those times considered themselves as original enough when they felt sufficient capability and dexterity to grasp an original thought, and to reproduce it again after their own fashion.

“Several of these gems presented themselves with the artist’s name engraved upon them; a circumstance upon which great value has been set for many years past. Such an addition is in truth remarkable enough, nevertheless the inscription generally remains a subject of dispute, for it is very possible that the stone may be antique, and the name engraved in modern times, in order to add new value even to the perfect.”

This collection was afterwards purchased by the King of Holland. Duke Ernst of Gotha had been strongly tempted to make the acquisition, but had been deterred by the following reasons, which are well worth transcribing, as vividly pointing out all the drawbacks to the pleasure of this pursuit.



Inton: Roman. Red Jasper.

Duke Ernst writes thus to Goethe: “Much as he desired the possession of the collection now before him, and well aware as he was of its great value, yet was he held back not so much by inward doubts as (and in a much greater degree) by an external circumstance. He had no pleasure in possessing anything for himself alone, but gladly shared the

possession of it with others; a pleasure too which was often greatly embittered. There *are* people who endeavour to display their penetrating sagacity by appearing to doubt the genuineness of every work of art laid before them, and by casting suspicion upon the same. In order not to expose himself repeatedly to such mortifications, he preferred foregoing the eagerly-desired acquisition of the cabinet."

On this letter Goethe makes the following truly appropriate observations:—

"It is highly vexatious to see a thing, though the most perfect, received with doubt; for the doubter sets himself up above the trouble of proof, although he demands it from the assertor of the authenticity of the work. But in such cases on what does the proof rest, except upon a certain inward feeling, supported by a practised eye, which may be able to detect particular signs, as well as upon the proved probability of certain historical requisitions, and in fact upon many other circumstances which we, taking collectively, by *their* means convince only ourselves at the last, but do not bring conviction into the mind of another? But as things are, the love of doubting finds nowhere a more ample field to display itself in than precisely in the case of engraved gems; now, one is termed an ancient, now a modern copy, a repetition, an imitation; sometimes the stone itself excites suspicion, sometimes the inscription, which ought to have been of especial value; and hence it is more dangerous to indulge in collecting gems than ancient coins, though even in the latter great circumspection will be required, when, for instance, the point is to distinguish certain Paduan imitations from the genuine originals. The keepers of the French Cabinet of Medals have long ago observed that private collections brought up to Paris from the provinces contain a large proportion of forgeries, because the owner, in his confined sphere of

observation, has not been enabled to practise his eye sufficiently, and has proceeded in his operations chiefly according to his inclinations and his prejudices. In fine, on considering the matter with exactness, this holds good of all kinds of collections, and every possessor of one will be ready to own that he has paid many a heavy apprentice fee for experience before his eyes have been opened."



Alexander. Reverse, Venus and Apollo. Lapis-lazuli.



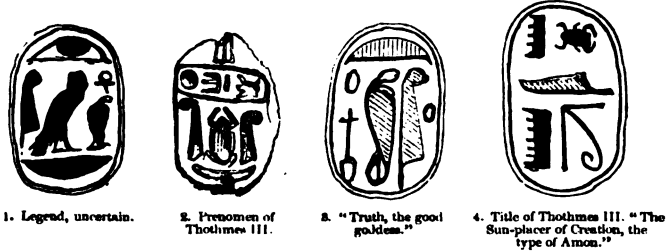
Priest adoring the Winged Bull: Early Assyrian. Limestone.

A SKETCH OF THE HISTORY OF GEM-ENGRAVING.

It is a curious fact that whilst the ancient mythologists have ascribed to some particular divinity or hero the invention of every useful or ornamental art, and of the instruments employed therein (as the loom to Minerva, the saw and auger to Dædalus, the working in metal with the hammer and the anvil to Cinyras the Cyprian, the lathe to Theodorus of Samos), they should have left unrecorded the inventor of the various processes of gem-engraving, a thing too so supremely important in their estimation, from its subservience to the uses of public and private life, as much as to those of taste and ornament. This silence on the part of the Greek mythographers, always ready as they were to claim for their own countrymen the credit of every discovery or invention in science or manufactures, even when evidently due to foreigners

classes of the inhabitants of that land, the fountain-head of European civilization.

Egyptian Scarabs in Steaschist.



Hitherto, however, we have come upon no traces, in these earliest signets, of the true process of gem-engraving, for all the designs they bear have been carved by means of some cutting instrument upon a comparatively soft material—the earliest Assyrian cylinders being of Serpentine, the Egyptian scarabs of clay or Steaschist. The invention of this most beautiful art is undoubtedly due to the seal-engravers of Nineveh, shortly before the reign of Sargon, the date at which cylinders first appear made out of the "Hard Stones"—Crystal, Onyx, Agate,—charged with engravings executed precisely in the style of the archaic Greek intagli, and marked by the same minuteness of detail and elaborateness of finish. Amongst these, the signet of Sennacherib may be quoted as an example most fully illustrative of this assertion; for it is made of one of the hardest substances known to the lapidary, the Amazon-stone, and bears an intaglio which by its extreme minuteness and the precision of the drawing displays the excellence to which the art had already attained, indicative of the long practice of the artist capable of such a work. Cylinders of nearly equal merit to this, and a large number of fair execution, done in the same style and by the same perfected process, continued

to be produced during the whole succeeding period, down to the very close of the Persian empire. The Egyptians, however, did not generally adopt this new but more laborious process, but continued to carve or chisel their rude hieroglyphics on soft materials until the age of the Ptolemies, the signets of the kings and nobles being engraved on gold, those of the lower classes on the softer substances, and by the means already mentioned. The circumstance that even in the age of Theophrastus the best stone for engraving gems with was still imported from Armenia, points of itself to that locality as the place where its use was first discovered and generally adopted by the workers in this line. Although neglected by the Egyptians, the new mode of engraving upon Hard Stones was speedily taken up by the Phenicians, the allies or tributaries of the Assyrian and Persian kings; for many seals of a purely Phenician character, yet of the earliest date, are found, bearing also legends in Semitic letters (of which they were the first inventors), and even some cylinders are preserved clearly attributable to the same people. They diffused the knowledge of this, together with the other arts, among the Asiatic and Insular Greeks. Homer frequently mentions the Tyrian merchant-ships voyaging amongst the islands of the Egean, and trafficking in ornaments and jewellery with the inhabitants (Odys. xv. 460); and the first intagli produced amongst the cities of the sea-board still bear the impress of an Assyrian origin in the stiff drawing yet careful execution of the animals (bulls or lions for the most part), the favourite devices upon the signets of the newly-planted Ionian or Æolian colonist. And this was to be expected, for it will be observed that the designs upon the scarabs of the Phenicians themselves deviate but little from the strict rules of the Assyrian code of art—for instance, in the numerous gems from their cemeteries at Tharros. Thence to Greece Proper

the transition was rapid, and the signet, now for the first time universally worn in a finger-ring, came into general favour throughout all the population ; a new manner this of securing the seal, for its oriental inventors had invariably worn their cylinder or stamp as the ornament of a bracelet or necklace. That the invention of the finger-ring is ascribed to Prometheus, a Greek hero, and its name, δακτυλῖον (a word of native origin unlike those of other personal ornaments evidently of foreign root, as *μανιακὴς* and *ψελλῖον*), prove this to have been a purely Grecian fashion. In addition to this is the express statement of Pliny that the use of finger-rings was introduced among the Romans from Greece, and though gems of the most archaic style come to light on the mainland, yet scarabs are only disinterred in the cemeteries of the islands, and thus may have belonged to Phenician or Etruscan visitors. Be this as it may, signet-rings must have attained universal popularity in Greece before 600 B.C., soon after which date Solon, amongst his other laws, passed one prohibiting the gem-engravers (already constituting a distinct trade) from keeping by them the impression of any signet once sold, in order to prevent the forgery of a counterpart or *replica* of the first for fraudulent purposes. And about this time also Herodotus mentions the famous emerald of Polycrates and the reputation of its engraver, the jeweller and metal-worker Theodorus of Samos.

Proceeding now to consider the contemporary class of Etruscan scarabs, we discover in them also the most evident traces of an Asiatic origin. Like the Phenician, they retain to the last the form of the beetle. The subjects cut upon the earliest sort are exclusively animals, domestic and wild ; it was only after their intercourse with the Greeks had been long established that they represent the figures and scenes derived from the mythology of that people. This may be

explained on the ancient theory, that the ruling Etruscan caste were a civilizing band of colonists from Asia, who introduced among the Celtic (Pelasgian) aborigines of Central Italy an art already flourishing in their native country. At a later period the Hellenic settlers in Magna Græcia seem, from their constant intercourse with the Etruscans, to have borrowed from them the form of the scarab (doubtless still venerated as a religious symbol),¹ but to have imparted to the intagli engraved upon its base that elegance and finish due to their own natural taste and advancement in modelling, painting, and statuary. Hence arises the circumstance, at first sight so difficult of explanation, of the co-existence of two contemporary classes of scarabs, one extremely rude, the other highly finished as regards the intagli.

In Sicily and Magna Græcia gem-engraving, like the cognate art of die-sinking, attained to its highest perfection first. Greece itself was ever a poor country, and distracted by perpetual wars, whilst the colonies sent out from it were advancing, through commerce and agriculture, to an incredible degree of prosperity. In one Dorian colony, Cyrene, Ælian expressly notices the wonderful skill (or numbers) of the gem-engravers; and Ismenias is reported to have sent from Athens to Cyprus to purchase an emerald engraved with Amymone, the description of which had taken his fancy. Most of the finest gems in our collections show, by the identity of their style, that they proceed from the same hands that cut the coin-dies for the mintage of these same cities. After this, the establishment of the Macedonian dynasty in Asia, and the command of unbounded wealth, conduced greatly to the encouragement of this art, pre-eminently the handmaid

¹ Worshipped by the Egyptians as the symbol of the Sun, by its forming the balls, depositories of its eggs, typifying the creation of the globe. (Plin. xxx. 30.)

to elegant luxury. This age gives us for the first time the portraits of princes, whose likenesses now occupy the gem in the place of that of the national deity; and from many allusions of ancient authors (hereafter to be noticed), it would appear that the usual signet of any personage of importance was the likeness of himself. The example of this substitution was probably set by Alexander, and connected with his own assumption of divinity, which will also explain his restriction of the privilege of engraving his sacred portrait to Pyrgoteles, the first artist of the day in that branch; for the numerous heads of this hero now extant are almost invariably of much later date, and belonging to the times of the Roman empire, when they used to be worn as amulets. With his age also begins the series of camei, the earliest known being the grand Odescalchi Sardonyx of Ptolemy and Berenice, evidently a contemporary work. Before this time, to judge from the confused expressions of Theophrastus, the Sardonyx had been almost unknown to the Greeks, and apparently supposed to be an artificial composition of the Indian jeweller.



Demetrius Soter. Sard.

Thus the art went on in its rapid progress to its culminating point, its professors ranking high amongst the artists of the day, and their works deemed worthy of commemoration by the court-poets, as the Galene of Tryphon sung by Addæus. They were patronised by the greatest princes; Mithridates

is recorded as the founder of the first royal cabinet of gems ; we find also a work upon this study dedicated to him by the Babylonian Zachalias. Unfortunately, the engravers never ventured to place their names upon their works much before the times of Augustus, so that Cronius and Apollonides, mentioned by Pliny as (after Pyrgoteles) eminent in this branch, are the only artists of this age of perfection of whom there exists any historical record.

The Romans, following their original teachers the Etruscans, adopted from them at first the scarab-signet, and retained this form until late in the republican period, as the modernized treatment of many of the intagli upon such gems plainly shows. It is impossible to fix the date when they began to substitute signet-rings for this primitive ornament. Pliny mentions that amongst the statues of the kings only two, Numa and Servius Tullius, were represented as wearing rings. These early signets, also, according to Ateius Capito, were not set with engraved stones, but had the seal cut upon the metal of the ring itself. When the use of gold rings was introduced amongst them by the Greeks (those of Sicily, no doubt), then engraved gems also began to be admired and employed for signets. This change of fashion, which took place in the later days of the republic, produced the numerous intagli that are turned up in the vicinity of Rome, distinguished from those of Greek and of Imperial workmanship by the deeply-cut intagli upon them, retaining much of the Etruscan style, and giving nearly the same subjects as the original scarabs, but with a better defined outline and more correct drawing. Many of these bear traces of having been originally set in iron rings, and thus indicate the period of the first introduction of engraved stones into that city.

But under Augustus gem-engraving in all its branches reached its very highest point, and more especially in the

department of portraits. Under the patronage of Mæcenas flourished Dioscorides, Solon, Aulus, Gnaeus; all the talent of Greece; either attracted to the metropolis of the world as offering the most promising field for their genius, or else originally brought there as the freedmen of those nobles whose family names they assumed on manumission. Now became universal the practice of the engraver placing his signature upon his best works, a convincing testimony to the high estimation in which that class was held, in this permission to commemorate themselves upon the ornaments of the highest personages.



Nereid and Hippocampi. Cameo.

This also is the age, par-eminence, of camei, whether portraits or groups, or single figures; for those that can with certainty be assigned to the pure Grecian period are of extreme rarity. The regular intercourse now established with the interior of Asia supplied the Sardonyx, and that in pieces of a size and beauty not attainable in modern times. To Severus inclusive it may be said that the best works of the Roman school are cameo portraits of the emperors and their relations.

During these two centuries the trade of making Pastes was also carried on to an enormous extent to meet the requirements of the poorer classes, who could neither dispense with so necessary an ornament, nor yet afford the cost of an engraved gem of any merit, and thus were enabled to gratify taste or vanity at a very trifling outlay. This business thrived amazingly, and has left us innumerable relics of the extra-

ordinary skill of the workmen in glass until it ceases quite suddenly in the third century, together with the productions of the gem-engraver himself. Camei were often reproduced in Pastes with wonderful fidelity and an admirable imitation of the material, especially where the cast has been re-worked and polished after the fashion of a gem. But Camei in Sardonyx were also produced in large quantities, many of them extraordinary for art and material, some bearing the engraver's name, but the greater portion unsigned, until the reign of Severus. In fact, some of the finest extant belong to the times of Hadrian, the most flourishing period of Roman art in all its extent; but from the date just mentioned gem-engraving declined and became extinct with extraordinary and unaccountable rapidity. Gold medallions and coins had superseded the intaglio and cameo imperial portrait as personal ornaments; the spread of Christianity acted more and more as a check upon the reproduction of other representations of the elegant Western mythology; and those permitted by the change in religious sentiments were only the tasteless and barbarous symbolical figures of the new Egyptian and Oriental creeds. At length, in the 5th century, Roman gem-engraving entirely vanishes, its last traces fading away in the swarms of ill-cut and worse drawn Abraxas Jaspers and Manichean amulets. Of the Byzantine nobles the signets were of metal, charged with the letters of the cognomen quaintly arranged in the form of a cross; and the few men of taste yet surviving treasured up the gems, the works of previous centuries, as precious articles of *vertù*, not to be profaned by common use.

In the mean time the art had taken refuge under the protection of the young and vigorous monarchy of Persia, when, together with the resurrection of the Achemenian dynasty and religion in the 3rd century, its productions had

come again into as general request as during the ages preceding the Macedonian Conquest, which have left us such stores of cylinders and Assyrian seals. During the long rule of the Parthians (a truly Turkish race), that region had indeed been singularly barren in engraved stones; it may be said entirely so; so dubious are any intagli that can be referred to the Arsacidæ. But on the contrary, the four centuries of the revived Persian empire have left to us abundant memorials of their sovereigns and their religion, in works somewhat rude it must be confessed, but still far less so than the contemporary monuments of effete Western civilization, and extremely valuable historically from the legends that surround the regal portrait, expressing his name and high-sounding titles. Barbarous as the style of most of these intagli is, and coarsely as the lines are sunk into the stone, there is a force and individuality of expression about many of them which display the engraver's appreciation of the true principles of his art. This class is continued down quite to the Mohammedan Conquest in the 7th century, and then suddenly comes to an end simultaneously with the dynasty whose features it had so long perpetuated.



Late Sassanian Portrait: perhaps Chosroes II. Calcedony.

Their place is taken by the only forms permitted by the religion of the conquerors,—elegant Cuphic inscriptions arranged in cyphers wrought in a neat and precise manner upon the choicest stones. The demand for these signets

throughout the East, and the taste required for the graceful combination of the flowing curves distinguishing Arabic calligraphy, kept alive all the mechanical processes of the art until the time of its revival in Italy.

The Byzantine school of the same interval merely deserves a passing notice, the sole evidence of its existence remaining to us being a few camei of religious subjects, in which the miserable execution is on a par with the tastelessness of the design. Throughout the West for the same ten centuries (from the fall of Rome to the Italian Renaissance) gem-engraving was, with a few doubtful exceptions, entirely unknown. The signets (still as much required, and for purposes of the same importance as in the times of antiquity) were seals of metal, or else antique intagli set in rings, having their subjects interpreted in a scriptural sense, and legends added around the bizzel to set forth this novel interpretation. Official seals in the Middle Ages were large and elaborate designs cut upon a metal matrix; but the demand for antique intagli to be set in personal signets was enormous; not regulated however in any degree by their beauty, but solely by the nature of the subjects upon them, according to the prevailing belief in the talismanic virtue of certain sigils, determined by the rules of the various Lapidaria then so much studied.

Thus the art slumbered on, seemingly destined never to be revived; totally extinct in the West, confined in the East to the production of the intricate convolutions of cyphers and monograms, when with the first dawn of the Revival in Italy it not only woke up, but within the space of a single lifetime attained to its second maturity, rivalling its ancient parent in beauty and skill, and in one class, the camei, far surpassing her in numbers, and perhaps in excellence. Towards the middle of the 15th century Italian taste had grown rapidly

more classical, and had gradually freed itself from the infection of Gothicism (*la maniera Tedesca*) as the several republics shook off their German tyrants—a transition that manifested itself in all the works of the Quattro-Cento, in monuments, furniture, pottery, and jewels. The new passion for antique works was necessarily compelled from the first to look for its gratification to the gems so long treasured up by their mediæval predecessors on account of either their intrinsic value or mystic virtues, but at length admired by the newly-opened eyes of a more cultivated generation for their true merits. To imitate them was the next step, and that not a difficult one; the mechanical methods, themselves of the simplest nature, were already known to the Florentines through their constant intercourse with the Levant; and the goldsmith who had worked from his youth on the Nielli of the same century was, as far as drawing went, quite on a level with the ancient Dioscorides or Aulus. This is the reason why the art reached its second full development in so short a time, and almost without passing through any stage of infancy, for the few gems that betray any influence of mediæval taste are extremely rare. By the end of the same century we find Camillo Leonardo praising Anichini, Gio. Maria da Mantova, and Tagliacarne, as equal to any of the ancients, and stating that their works were diffused over all Italy, which implies that their labours had already extended over several previous years.

The next century, the Cinque-Cento, furnishes the celebrated names of Il Vicentino, Alessandro Cesati, Maria da Pescia, and a hundred others of nearly equal merit, whose works, especially in cameo, constitute at present (passing for antiques) the choicest portion of many a celebrated collection. The wheel and the magnifying-glass had now enabled the artist to pour forth a swarm of camei with a facility unknown

to the ancient engraver; whilst the demand for them as ornaments (quite the converse of that prevailing in classic times) had far exceeded that for intagli, and thus stimulated the production of the former to an incredible degree. Large intagli, however, in Rock Crystal, were especial favourites in this century, and constitute the most noted works of Il Vicentino; these, together with the contemporary camei, adorned both the ecclesiastical and domestic plate, the dresses and the arms of the nobles and the wealthy merchants.

The next century, an age of civil wars throughout Europe, which arrested and even threw back the civilization hitherto advancing with such rapid steps, witnessed also a great decline in this art, both in the quantity and still more in the excellence of its productions, which are usually intagli of large dimensions, coarsely and deeply cut, for the most part heads of Roman deities and repetitions of the works of a better period.

The 18th century, however, brought with it a great and unexpected improvement in both the branches of gem-engraving, and more particularly in the works in intaglio. The great point of difference to be remarked between the style of the artists of this time and that of the best works of the Cinque-Cento is this: the latter did not servilely copy the antique, but borrowed its subjects and treated them in its own peculiar manner, and that with a spirit and liveliness that brought forth really original works bearing the stamp of their era upon themselves, and hence valuable historically as monuments of a particular period of art. But the engravers of the last century totally disclaimed all originality, contenting themselves for the most part with making repeated copies of certain famous gems, and placing their highest ambition in the ability to pass off their own work upon unsuspecting amateurs as some recent discovery of undoubted antiquity. Almost the only one to be exempted from this charge is the

chief of the list, John Pichler, to whom may be added, in some instances, Natter and Rega; though the two latter *did* engrave and pass off many gems as antique, and which still rank as such in many a noble cabinet. This may truly be styled the age of forgeries of all kinds and degrees; the adding false names to genuine antiques, the re-touching the ruder gems of ancient engravers, the making pastes to such perfection, that when prepared as doublets they often deceive the most experienced eye. It is this period that has thrown so much uncertainty into this study, and has rendered the coming to a decision as to the genuineness of a fine intaglio, if judged of by the work alone, irrespective of mineralogical considerations, one of the most difficult tasks for the archaeologist, however much attention he may have given to this particular subject. Sirletti, Costanzi, Ant. Pichler, and a host of others little inferior to them as copyists of the antique manner, all pursued this then most lucrative trade, and have left behind them an infinite number of such fabrications to perplex all future connoisseurs. It may be asserted with truth that, for every gem of any note full a dozen copies are in circulation; and often so close is the imitation, as to cast a doubt upon the certainty of the original itself. The larger intagli, especially the imperial portraits, have been the most exposed to these fraudulent reproductions. This abundance of counterfeits, and the discredit brought upon the critical knowledge of collectors by their admission into some of the choicest cabinets formed during this period, may be assigned as one of the chief causes of the sudden decline of the taste for gems since the commencement of the present century.

The few English gem-engravers who have ever attained to any celebrity all flourished during the latter half of the 18th century: it will suffice to name Brown, Wray, Marchant, and Burch. Their works, all in intaglio, though fine and

correctly drawn, are nevertheless much inferior to those of the contemporary Italian school, the last of whom, Pistrucci, survived till within a few years. With him and Girometti at Rome the art may be said to have expired, as far as regards the execution of works displaying equal genius and commanding similar prices with the chefs-d'œuvre of painting and sculpture. Even at Rome all that survives of this once so numerous profession are a few mechanics rather than artists, who manufacture the cameo Onyx studs so largely purchased by the visitors,—mere trade articles, finished off by the dozen at the lowest possible expenditure of time and labour; some who still forge to order the mediocre antique intagli; and, the only class making any pretension to taste and skill, the cutters of camei in shell. Thus the art of engraving designs upon hard and precious materials may be said now to have closed its career of thirty centuries in the same phase in which it started at the first dawn of civilization, when the Egyptian first fashioned his scarab out of the soft steaschist, his first essay being a work in relief, intended for stringing on the necklace or bracelet; so in our times the Roman shell-camei, of an equally valueless substance, and designed for similar ornaments, alone preserve a faint shadow of the departed glories of the glyptic art.¹



Helmet of King Stanislas Poniatowsky: Greek. Jasper-press.

¹ The different subjects touched upon in this sketch, with the authorities for the various statements, will be found given at length under their respective heads in the following chapters.



Marcus Aurelius: aureus by Solon



Mercury. Greek work. Cameo Onyx.

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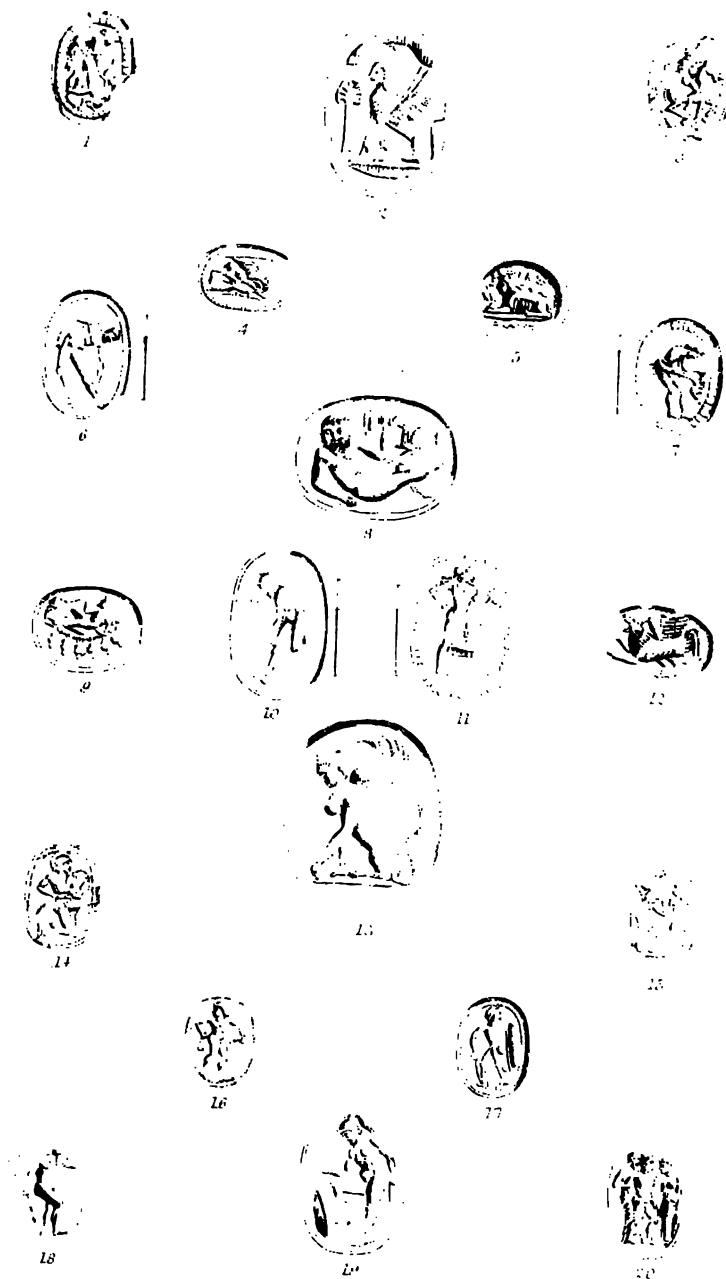


Cupid on a hippocampus: Roman Cameo. Onyx.



SCARABEI.

From the Museum of Comparative Zoology



E. Salan. del. et sc.

PLATE I.

SCARABEI FROM THE MERTENS-SCHAAPHAUSEN COLLECTION.¹

1. FEMALE in a long robe lifting from the ground a child with deformed legs: probably Pallas and Erichonius. Etruscan. Sard.
2. SEATED SPHINX, above is the royal vulture, in front a palm-tree. Phenician, Calcedony.
3. WARRIOR on horseback carrying a trophy. Etruscan. Sard.
4. GRYPHON devouring a stag. Greco-Italian. Sard.
5. CROUCHING SPHINX, in front two hawks, in the field various letters. Late Egyptian. Topaz.
6. NAKED MAN touching his ankle: perhaps an Apoxyomenos. Greco-Italian of the best period. Amethyst.
7. WARRIOR plunging a sword into a human head which he carries in his left hand: perhaps Tydeus with the head of Melanippus. Etruscan. Sard.
8. SILENUS reclining, in his hand the cantharus; a large crater in the field. A magnificent old Greek work. Calcedony.
9. FAUN reclining on a raft formed of six amphoræ fastened together, and holding up a wine-skin for a sail. Etruscan. Sard.
10. WARRIOR extracting an arrow from his leg: probably Diomedes wounded by Paris. Greco-Italian. Sard.
11. BACCHUS in a long robe, in one hand a rhyton, in the other a myrtle-branch. Etruscan. Sard.
12. A WINGED MONSTER, resembling the winged boar on the coins of Clazomenæ. Sard.
13. SEATED SPHINX, bold and spirited style, perhaps assignable to Chios. Agate.
14. WARRIOR in full armour kneeling (Tydeus in ambush), of the best Greco-Italian style. Sard.
15. SEATED FIGURE adoring an Egyptian king, advancing towards him. Fine Greco-Egyptian work. Obsidian.
16. CUPBEARER; in one hand the wine-strainer, in the other the ladle by which the wine was taken out of the crater. Late Etruscan. Obsidian.
17. NAKED WARRIOR with huge hemispherical shield and large sword. Etruscan. Sard.
18. NAKED YOUTH, in his hand a large broadsword, weeping over a sepulchral column (Castor at the tomb of Aphareus), on which is hung a discus and a strigil. Greco-Italian. Onyx.
19. WARRIOR bending a bow, behind a shield; perhaps Pandarus. Greco-Italian. Calcedony.
20. AN AGED MAN supporting a fainting youth, a female grasps his arm. This group is explained by Steinbüchel as Dædalus introducing Theseus to Ariadne. Greco-Italian work of the most perfect execution. Sard.—(Perhaps Electra and the Chorus tending the mad Orestes.)

¹ This collection is one of the most important ever formed by a private person. Madame Mertens-Schaaflhausen of Bonn was already in possession of about 100 antique gems when, in 1839, she purchased the entire Praun Collection. This consisted of above 1000 engraved stones, and had been formed during the second half of the 16th century by Paulus von Praun, a patrician of Nuremberg, who died at Bologna in 1616, after having passed the greater part of his life in Italy. His cabinet of gems, left as an heir-loom to his family, had always been preserved intact until the time of its acquisition by Madame Mertens. She separated from it the Cinque-

Cento works, and continued until her death to enrich the series with fresh acquisitions made in Germany, France, and Italy. At present it consists of 1876, comprising fragments and antique pastes (the latter comparatively few), or 1626 stones and 250 pastes.

In 1859 this Cabinet was purchased by the present owner, and was added to his already important series, amongst which are numbered some of the finest intagli of the Herz Collection, the Mæcenas, the Discobolus, &c.; and (from another source) the Triumph of Silenus, perhaps the most perfect antique composition known; all figured in these plates.

PLATE II.

GREEK INTAGLI FROM THE MERTENS-SCHAAFHAUSEN COLLECTION.

1. HERCULES SLAYING THE HYDRA. Exactly identical with a type of the coins of Phæstus, in Crete. Sard.
2. HEAD OF PENELOPE, or more probably of Creusa. See Christodorus 'Statues in the Gymnasium of Zeuxippus' (*Anthol.* i. p. 32):—

"Æneas' consort next, in mournful guise
 The veiled Creusa met my wondering eyes;
 Round both her cheeks her veil full closely drawn,
 Down to her feet descends the flowing lawn—
 As one lamenting stands the woeful dame,
 And tears of bronze her nurse's fall proclaim;
 How conquered Ilium on that fatal day
 Lost and betrayed had sunk, the Argives' prey."

Deeply cut on a very fine Sard.
3. ATREUS ARMED WITH THE HARPE OF PERSEUS (the founder of Mycenæ), about to cut up the child of his brother Thyestes. Bold Greco-Italian work. Sard.
4. HEAD OF APOLLO. Fine work of the early school. Nicolo.
5. HEAD OF A POET (perhaps Terpander, wrongly called of Ulysses). Calcedony.
6. WOUNDED WARRIOR DEFENDING HIMSELF WITH AN AXE. Antique paste.
7. NEPTUNE. Delicate work in low relief. Yellow Sard.
8. SILENUS holding a crater to his panther. Late work, probably Roman. Sard. broken.
9. HERO AND LEANDER. Fine work. Pale Sard.
10. ORPHEUS seated on a rock, supporting his lyre on the trunk of a tree. Sard.
11. CERES, or a priestess with sceptre and fillet, her hair gathered into a long tress. Minutely finished. Sard.
12. ACTOR IN THE COMEDIA TOGATA, holding the pedom, and wearing a comic mask. Sard.
13. VENUS REGARDING HERSELF IN A CONVEX MIRROR. Agate.
14. INDIAN BACCHUS. Archaic style. Sard.
15. ERECTHEUS ABOUT TO SACRIFICE HIS DAUGHTER CHTHONIA beneath the sacred olive-tree: a female seen emerging from the ground typifies the following suicide of all her sisters. Agate.
16. YOUTHFUL FAUN CARRYING A KID. An admirable work. Yellow Sard.
17. LUNA VISITING ENDYMION sleeping upon Mount Latmos: Cupids bearing attributes of the chase. An admirable group, and engraved on a Sard of extraordinary beauty.
18. ARGUS WITH ADZE cutting out the stem of his ship from the vocal oak of Dodona supplied by Pallas. Greco-Italian work. Sard.

GREEK GEMS.

from the Portico Schaffhausen Collection.



ROMAN CEMS.

from the Marston, Chaffham, Collection.

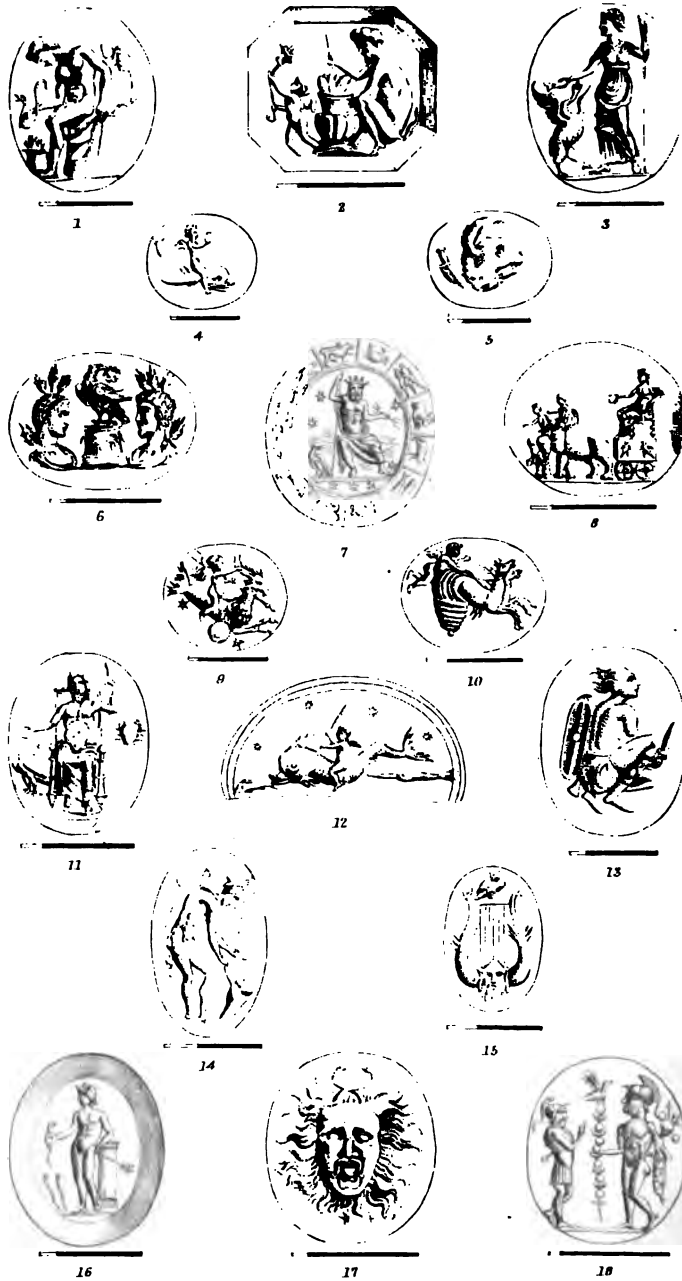


PLATE III.

ROMAN INTAGLI FROM THE MERTENS-SCHAAFHAUSEN COLLECTION.

1. A SEATED YOUTH holding a serpent over an altar: behind him is a butterfly on a branch: symbolizing a sacrifice to Esculapius. Sard.
2. AGED FAUN SEATED, stirring the contents of a large vase: in front, Cupid with a flambeau. Deeply cut on a splendid Jacinth.
3. JUNO CAPITOLINA; before her the sacred goose. Sard.
4. CUPID ON DOLPHIN, playing the double flute. Onyx.
5. DOG'S HEAD AND SACRIFICIAL KNIFE: attributes of Hecate. Red Jasper.
6. BUSTS OF GALLIENUS AND SALONINA crowned with wheatears: between them an altar on which stands an eagle. (Compare the noted aureus of Gallienus thus crowned: Rev., VBIQVE PAX.) Sard.
7. JUPITER SEATED WITHIN THE ZODIAC: upon the gem of Jupiter, Lapis-lazuli. Astrological intaglio, the horoscope of the owner:—
"Nunquam erit pauper cuius nativitatis dominus est Jupiter."—*Almanzor*, XII.
8. CERES (perhaps Agrippina Junior) IN A TRIUMPHAL CAR drawn by two elephants. Fine work. Yellow Sard.
9. CUPID ARMED WITH THE TRIDENT, MOUNTED ON CAPRICORN: beneath are the globe and two stars. Astrological gem. Sard. See p. 332.
10. CUPID GUIDING WITH THE TRIDENT TWO HORSES issuing out of a large shell. A most elegant intaglio. Sard.
11. JUPITER ENTHRONED, the eagle at his feet: in the field, Cancer. Astrological gem. Calcedony.
"If Jupiter be found in Cancer (as Horoscope) the native will be the friend and faithful confidant of the secrets of the great and powerful." (*Firmicus*, *Decreta Signorum*.)
12. CUPID MOUNTED ON A WHALE; above him four stars; below, a swordfish and a dolphin. Agate surrounded by an imitation of an Etruscan border. Constellation of the *Fish*.
13. GAUL WITH FLOWING HAIR AND NAKED TO THE WAIST, crouching down, his shield slung at his back; in his hand is the huge and pointless iron broadsword described by Polybius (II. 33). Early Roman, referring to some Gallic victory, perhaps of Marius. Plasma.
14. HERMES PSYCHOPOMPUS RAISING THE SOUL OUT OF HADES: in the field C.A.D., initials of the owner. A work of the Early Empire. Onyx.
15. LYRE FORMED OF TWO DOLPHINS AND A MASK: upon the bridge sits an owl. Onyx.
16. HERMES LEANING AGAINST A COLUMN, holds forth a serpent; at his feet two more rear themselves towards him. Calcedony.
17. GORGON'S HEAD. A work of amazing vigour. Purple Ruby (or Almandine).
18. ROMAN SOLDIER ADORING MARS, who holds in one hand a trophy, in the other a legionary standard. Early work much in the Etruscan manner. Sard.

PLATE IV.

GREEK AND ROMAN GEMS FROM THE MERTENS-SCHAAFFHAUSEN COLLECTION.

1. YOUTH SEATED and making a gesture of refusal with his hand; before him stands a woman apparently urging some request. (Hippolytus and Phædra's nurse?) Roman Plasma.
2. PORTRAIT OF MESSALINA: behind the head are the letters TON remaining of the owner's name, the field of the gem having been broken away. Very fine work of the period. Jacinth.
3. ROMA SEATED ON ARMOUR, HOLDING A VICTORY: in front the petasus of Mercury placed upon two shields; behind are the sceptre of Jove and the staff and serpent of Esculapius. Sard.
4. WARRIOR REGARDING A BIRD placed upon a sepulchral column round which twines a serpent; at its base lies a ram. Panofka explains this as the oracle of Picus consulted by a warrior. Sard.
5. ARTIST SEATED ON THE GROUND engaged in chasing a huge Corinthian crater. Sard.
6. BUST OF SERAPIS supported on a globe and column placed over an altar: in the field a trifold emblem between the letters T and X. Red Jasper.
7. BUST OF A BACCHANTE looking upwards. Worked in a very bold manner. Sard.
8. THREE GRECIAN WARRIORS at the foot of a sepulchral column, one of them stooping down puts his hand into a tall pitcher. The Argonauts purifying themselves after the accidental slaughter of Cyzicus; or, more probably, according to Ulrichs, the Heraclidæ drawing lots for the partition of the Peloponnesus: their respective pebbles having been cast into a vase of water, Creophontes by substituting a ball of clay, which dissolves, obtains the last choice, Messene. (Apollodorus, II. 8.) Greco-Italian work. Sard.
9. FOOT OF HERMES CRUSHING A BUTTERFLY: the symbol of death. A most exquisitely finished engraving on a splendid Jacinth.
10. HEAD OF AUGUSTUS within an olive-garland. Minute work. Sard.
11. EAGLE WITH SPREAD WINGS; on his breast the head of Ganymede. Sard.
12. ULYSSES PRESENTING THE BOWL OF WINE TO POLYPHEMUS; behind him stands one of his companions with a wine-skin on his shoulder. Carbuncle of extraordinary size and beauty.
13. MOUNTED HUNTER with two hounds chasing a lion. Sard, convex on each side, and perforated in the centre.
14. THREE SIRENS WALKING. Amethyst.
15. THE CHILD OPHELTES encircled by a monstrous serpent. Red Jasper.
16. BUST OF FATHER NILUS with the cornucopia; in front, the papyrus. Pale Sard. Very fine work.
17. THE CITY OF ANTIOCH seated on rocks; below is the river-god Orontes; in the field the initials A. I. M. A., for "Antioch the Sacred, the Metropolis of Asia," Plasma.
18. The same City, but seen in front: on one side stands Fortune, on the other the tutelary genius of Antioch placing a wreath on her head. Calcedony.

GREEK AND ROMAN GEMS.

From the Bertoni-Schauffhausen Collection





GREEK AND ROMAN GEMS.
From the Charles Collection.



PLATE V.

INTAGLI, FROM THE RHODES COLLECTION, GREEK AND ROMAN.

1. SAGITTARIUS. Fine Roman work. Sard.
2. PROCESSION OF SILENUS, supported by a Faun. One of the finest Greek gems known, both for excellence of grouping and perfect finish of the figures. Sard.
3. MESSALINA. Contemporary portrait. Yellow Sard.
4. VENUS INSTRUCTING CUPID IN ARCHERY. Roman. Sard.
5. APOLLO DELPHICUS. Greek of the best period. Jacinth.
6. VENUS ROBIN HERSELF. Roman. Sard.
7. FAUN POURING AN AMPHORA INTO A CRATER. Greek. Sard.
8. BACCHIC FESTIVAL. Roman. Sard.
9. BACCHUS WITH HIS PANTHER. Greek. Sard.
10. VENUS GUIDING HER SHELL. Modern Italian. Calcedony.
11. PRIAM BEFORE ACHILLES, Briseis raising him from the ground. Finest Greek style. Sard. (P. 157.)
12. MERCURY AND SCORPIO. Astrological Roman. Plasma.
13. PALLAS. Finest Greek work. Sard.
14. CUPID RACING. Excellent Roman work.
15. A DISCOBOLUS. A gem to be reckoned amongst the very finest Greek intagli extant. Sard.
16. AGRIPPINA JUNIOR. Contemporary portrait. Plasma.
17. PAN AND OLYMPUS before a fountain on the margin of which crawls a snail. (The emblem of voluptuousness.) A most minutely-finished Roman intaglio. Sard.
18. FAUSTINA MATER. Contemporary portrait. Sard. Formerly in Horace Walpole's Collection.



Silenus. Sard.



Socrates. Onyx.

List and Description of Woodcuts.¹

As most of the gems here given have been selected from the Mertens-Schaafhausen Cabinet, it has only been considered necessary to designate those introduced from other sources.

	PAGE	Title
Lion's head, signet of Theodorus: ² Archaic Greek. Sard (Rhodes). (p. 168.)	iii	
Agave: Cameo. Plasma. A splendid example of the Roman style in flat relief	iii	
Plato: contemporary work. Sard (Rhodes). This rare portrait has a marked individuality of expression, which, in addition to the Psyche-wings attached behind the ear, sufficiently distinguish it from the heads of the Indian Bacchus (see next No.). It is worked out very carefully in a flat style upon a pale Sard, and belongs to a much earlier period than the signet of Saufeius, the portrait upon which it identifies in a most striking manner. To this most interesting intaglio we can apply in their fullest extent the words of Winckelmann (Pierres Gravees, p. 420) speaking of a similar, if not the same, gem—"La gravure de cette pierre est fort antique, et elle est exécutée avec grande finesse; elle parait si antique qu'on la croirait faite du tems de Platon même" (See Mon. Ined. iii. pl. 169)	xi	
Apollo of Canachus: Roman. Sard.	xii	
Vizored Helmet: Etruscan. Sard.	xviii	
Macedonian, or Syro-Macedonian, Helmet. Agate	xviii	
Prometheus making Man: Cameo. Onyx (Rhodes).	xxiii	
Amynone: Early Greek. Sard. The pitcher in her hand signifies the gift of the fountain of Lerna by Neptune, and which gushed from the rock struck by the trident	xxiv	

¹ Where no scale is attached the gems have been drawn to twice the diameter of the originals; the only way to produce the same impression of magnitude upon the eye as the cast itself from the intaglio creates by its spherical projection. This is the reason why drawings of gems if made exactly to the scale of the originals always appear much diminished, for though the outline of the figures remains

equal in both, no allowance has been made for this projection, amounting often to half a diameter, where the work is in high relief.

² Or perhaps Theumenes. Combe gives (Pl. 18, No. X), a drachma of Chidus, of the type of a lion's head in a precisely similar style, and over it the magistrate's name ΘΕΥΜΕ....

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Priest adoring the Winged Bull: Early Assyrian. Limestone (Layard)	xxxiii
Egyptian Scarabs in Steinschist (Layard).	xxxvi
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Nereid and Hippocampi: Cameo.	xlii
Late Sassanian Portrait—perhaps Chosroes II. Calcedony. Chosroes alone in the Sassanian series appears in front-face on his coinage (Author's Collection).	xliv
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⁴ The character beneath the chin of the portrait is the Persian S, and is seen thus singly beneath the Ram's head on the coinage of this city, also behind the head of Venus on the unique gold piece of Menelaus king of Cyprus, minted at Salamis. See the Num. Cypricote of the Duc de Luynes.

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⁵ The description of the hydraulis, invented by Ctesibius of Alexandria, as given by Athenæus (iv. 75), exactly applies to this intaglio. * The hydraulic organ seems to be somewhat after the nature of a water-clock. Perhaps it ought to be termed a wind-instrument, inasmuch as the organ is filled with breath by

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⁶ Described by Raspe as "a Persian Sphinx, the bas-reliefs of Chelminar; with a figure before Mithras, the Image of the Sun, as seen upon hind, like Horus, swathed."



Combat between Lion and Bull: Etruscan. Sard.

ANCIENT GEMS.

SECTION I.—MATERIALS.



Livia. Red Jasper.

SOURCES WHENCE GEMS WERE OBTAINED BY THE ANCIENTS.

BEFORE we enter upon the consideration of the intagli and camei themselves, and of the various styles of art which they present, it will be more appropriate to give a brief description of the different sorts of gems upon which they usually are found, to point out their respective characters, and at the same time to identify, as far as can be done, the species of stones principally employed by the ancients for these works ; and to distinguish them from those only known to modern engravers, or at least more generally used by the latter than by the artists of antiquity. The sources whence they were obtained will be separately noticed under each head, but a most suitable introduction to this section will be the elegant description given by Dionysius Periegetes of the trade in precious stones carried on by the Orientals early in our era ; for, although the date of his poem is disputed, yet his allu-

sions to Persian wars seem to point to the age of Augustus, or at the latest of Trajan :—

“ And Babylon’s vast plain, where miles around
The lofty palm-trees overarch the ground ;
Where, far more precious than the mines of gold,
Serpentine rocks the beryl green enfold.
Apart his Indian waves Choaspes leads,
And in a separate course bounds Susa’s meads :
Upon his banks the beauteous agates gleam
Rolled like to pebbles by the rushing stream,
Torn from their native rock by wintry rains
And hurried by the torrent to the plains.
Those who Parpanisus’ deep valleys claim
Conjointly bear the Arianian name :
No lovely land the wretched natives own,
But sandy wastes with thickets rough o’ergrown :
Yet other sources do their lives maintain,
And endless wealth springs from the barren plain ;
On every side the ruddy coral shines,
On every side they view the teeming mines
Whence th’ azure slabs of sapphire brought to light,
With guerdon rich laborious hands requite.
Towards the east spreads India’s lovely land
Farthest of all along the ocean’s strand :
The first illumined by his earliest rays
When rising Phœbus heaven and earth surveys :
Hence the sleek natives dark as night appear,
Adorned with flowing hyacinthine hair ;
Of whom, some, skilled the golden ore to seek,
The sandy plain with crooked mattocks break ;
Others the airy webs of muslin weave,
Whilst others to the ivory polish give ;
Some seek amidst the pebbles of the stream
The verdant beryl, or the diamond’s gleam,
Or where the bright green jasper meets their view,
Or the clear topaz shows its lighter hue,

Or the sweet amethyst, which, serenely bright,
Diffuses far and wide its tranquil light.
The land thus blessed with rivers never dry
To all her sons doth constant wealth supply."

These gems, together with other Indian productions, were brought for transmission into Europe to the great annual fairs held in Syria, one of which is thus described by Ammianus (xiv. 3):—" *Batne*, a municipality in Anthemusia, founded by the ancient Macedonians, situated at a short distance from the Euphrates, and crowded at that time with wealthy traders, where on the annual festival, held at the beginning of September, a vast multitude of people of all conditions assemble at the fair to purchase the goods sent by the Indians and Chinese, and the numerous other productions accustomed to be conveyed thither both by sea and land."

GEMS USED BY THE GREEKS.

Theophrastus (c. 30) thus specifies the kinds of gems most used in his own time, the 4th century before our era:—" But of gems out of which signets are made there are several others, such as the glass-like sort (Beryl), which possesses the property of reflection and transparency, and the Carbuncle and the Omphax (perhaps the Chrysoprase), and besides these the Crystal and the Amethyst, both of them transparent. Both these and the Sard are found on breaking open certain rocks, as well as others, as we have before stated, presenting certain differences, but agreeing in name with each other. For of the Sard the transparent and blood-red sort is called the female, while the less transparent and darker kind is termed the male. And the different kinds of Lynceurium are distinguished in the same way, of which the female is the more transparent and of a deeper

yellow; and the Cyanus also is named, one sort the male and the other the female, but the male is the deeper in colour of the two. The Onyx is made up of white and brownish red in parallel layers. The Amethyst is of the colour of wine. A handsome stone too is the Agate, brought from the river Achates in Sicily, and is sold at a high price. At Lampsacus there was once discovered in the gold-mines an extraordinary kind of stone, out of which, when taken to Tyre, a signet gem was engraved, and sent as a present to the king (Alexander) on account of its singularity. These gems, in addition to their beauty, possess the recommendation of rarity; but those coming out of Greece itself are much less valuable, such as the Anthracium (Carbuncle) from Orchomenos in Arcadia. This is darker than the Chian sort, and mirrors are made out of it.¹ And also the Troezenian; this last is variegated partly with red, partly with white patches. The Corinthian also is variegated with the same colours, excepting that the stone itself is somewhat greener. And, generally, stones of *this* kind are common enough; but the first-class gems are rare, and come from but few places, such as Carthage, and the neighbourhood of Marseilles, and from Egypt near the Cataracts, from Syene close to the town of Elephantina, and from the district called Psephò; and from Cyprus the Emerald and Jasper. But those that are used for setting in ornamental metal-work come from Bactria, close to the desert. They are collected by horsemen, who go out there at the time when the Etesian winds prevail; for then they come to sight, the sand being removed by the violence of the winds. They are however small, and never of large size." This last gem is probably the Turquoise, so much used by the Persians of all ages for setting in their

¹ The flat surface of a dark garnet will reflect objects with tolerable distinctness.

arms and ornaments. The locality named by Theophrastus, and the small size of the stone, particularised by him, are also arguments in favour of the correctness of this supposition.



Male and Female Comic Masks. Roman. Sard.

SARDS.

The Carnelian, and its superior variety the Sard, may justly claim the first place in this list of stones employed by the ancient engravers, as they alone present us with as many intagli cut upon them as all the other species of gems put together. The Carnelian is a semi-transparent quartz of a dull red colour, arranged often in different shades, and is found in great abundance in many parts of Europe; for instance, on every coast where the beach is composed of rolled flint shingle, as on the Chessil Bank, Weymouth, the coast of Devonshire, &c. The most ancient intagli, such as the Etruscan and the Egyptian, are usually cut upon this variety. But when the trade with the East was established, after the conquest of Asia by Alexander, a much finer description of this stone, the Sard, came into general use; and on this all the finest works of the most celebrated artists are to be found. And this not without good cause, such is its toughness, facility of working, beauty of colour, and the high polish of which it is susceptible, and which Pliny states that it retains longer than any other gem. The truth of his assertion has been confirmed by the testimony of the seventeen centuries that have elapsed since he wrote, for antique

Sards are found always retaining their original polish, unless where they have been very roughly used; whilst harder gems, as Garnets, Jacinths, and Nicoli, have their surfaces greatly scratched and roughened by wear. So true is this, that the existence of a perfect polish in any of the latter class of stones affords in itself a tolerably sure proof that the gem is either modern, or has been retouched in modern times.

When Pliny wrote, the bright red variety was the most esteemed, the honey-coloured were of less value, but the lowest place of all was assigned to those of the colour of a burnt brick, that is, to the kind we now call Carnelians. The bright red are certainly very fine in hue; they often equal the Carbuncle, and come near to the Ruby in tint and lustre; but they are always to be distinguished from these gems by a shade of yellow mixed with the red. This colour in some Sards deepens into that of the Morella cherry; these were considered the males of the species, for the Romans, following the Greek mineralogists, divided gems into males and females, according to the depth or the lightness of their colour. Upon this bright red variety the best Roman *intagli* usually occur. The light yellow sort resembling amber was much in use at an earlier period; on *this* are frequently found the finest works of the Greek artists, and also those stiffly drawn yet highly finished figures of the most minute execution, surrounded with granulated borders, which were formerly termed Etruscan, but now with more reason assigned to the Archaic Greek school. Very meritorious Roman engravings present themselves upon this kind also, but they usually belong to the times of the Early Empire, the latest I have seen being a very well cut head of Severus.

On the common red Carnelian we often have very good *intagli* of the Republican age; and most of the Etruscan *scarabei* are cut out of this material, of which they got a

plentiful supply from the beds of the Tuscan rivers; even now the shingle of the brook Mugnone, near Florence, furnishes this stone in great abundance. The name *Sardius* is derived from the fact of the gem being first imported into Greece from Sardis, probably brought thither from the interior of Asia; for we are informed by Pliny that the best came originally from Babylon. This Babylonian mine had at that time failed; but the Romans obtained them also from many other countries, especially from Paros and Assos. Those from India were transparent, from Arabia somewhat opaque. One of the three Indian varieties used to be backed with silver foil when set. A gold foil was employed for those found in Epirus and Egypt. Sardis retained their polish longer than any other gem, but suffered most from contact with oil.

CALCEDONY.

This is a semi-transparent white quartz, slightly tinted with yellow or blue; the latter kind is sometimes called the *Sappherine*, being erroneously considered a pale variety of the Sapphire. This stone was much used at every period of antiquity; the earliest Babylonian cylinders being formed of it as well as the latest Sassanian stamps. Scarabei of Etruscan work, as well as good Greek and Roman intagli of all ages, occur in this material; but engraved upon the *Sappherine* in preference to the other sort; and justly so, as it is an extremely pretty stone, often approximating to a pale Sapphire in colour, although entirely destitute of brilliancy. The finest Persian cylinder known (engraved with the usual type of the king fighting with the lion) was formed out of this variety; the signet doubtless that once graced the *wrist* of some Darius or Artaxerxes of the later days of the Persian monarchy.

Busts and heads, in full relief and of considerable volume, are frequent in Calcedony. When the stone has a bright tinge of yellow, it is named the Opaline, and these heads and busts are therefore sometimes described as made out of Opal; a material in which it is almost needless to say that none ever existed.

The most noble work in *relief* executed on a gem that I myself have ever seen was a three-quarter head of Augustus in a white opaque Calcedony greatly resembling ivory; it was about three inches in height, and the work the very perfection of sculpture.² It subsequently passed into the Fould Collection. In what way this stone got its present name is a very puzzling question, for the ancient Chalcedonius, so called from the locality where it was obtained in the copper-mines, was a kind of inferior Emerald, "the green in it being mixed with blue, like the feathers of a peacock's tail, or of a pigeon's neck," but of which the supply had failed before the age of Pliny. The modern Calcedony, or White Carnelian, as our lapidaries call it, was probably the Leucachates and the Cerachates, the White and Wax Agate of the ancient mineralogists.³

ONYX, SARDONYX, NICOLO, AGATE.

Next in point of frequency to the Sardis come these stones, all being varieties of the same material, but distinguished by the different colours and arrangement of the layers of which they are composed. The Sardonyx is defined by Pliny as "candor in sarda," that is to say, a white opaque layer super-

² The "Chernites" is described as a stone only differing from ivory in its superior hardness and density: the sarcophagus of Darius the Great was made of it.

³ More modern forgeries, especially

of camei, will be found in Calcedony than in any other stone; whilst, on the other hand, genuine antique works in this material are much more unfrequent than on any of the other varieties of the quartz family.

imposed upon a red transparent stratum of the true red Sard ; and no better description can be given of a perfect gem of this species. Such were the Indian Sardonyx stones of his times, whilst the Arabian species retained no vestige of the Sard, but were formed of black or blue strata, covered by one of opaque white, over which again was a third of a vermilion colour. These stones were found in the beds of torrents in India, and were but little valued by the natives ; they were of sufficient size to be worked up into sword-hilts. The Indians also bored holes through them, and wore them as necklaces ; and this perforation was considered by the Romans as the test of their Indian origin.⁴ In certain specimens of this Indian variety the base was of the colour of wax or of horn, then came a white layer sometimes slightly iridescent, and the surface was “ redder than the shell of a lobster.”

This stone (and, literally, Pliny’s definition of it, “ candor in Sarda ”) was imitated by the ancient as well as by modern lapidaries, by placing a Sard upon a red-hot iron ; this process converted the red surface of the stone into an opaque white layer of the depth required, which forms a good relief to the intagli cut through it into the transparent ground beneath. No doubt this effect of fire upon the Sard was first discovered by accident, and that too at a late period of the Empire, as I have never seen any fine engravings upon such a material, though Gnostic subjects are common enough in it. As might

⁴ This fact explains the reason of the fine hole we so frequently notice passing through the axis of Sardonyx camei ; the stones, having been imported into Europe in the form of oval beads, were subsequently cut down into flattened disks to afford the proper disposition of their strata for the working out of the design in relief. From ignorance of this original destination of the material, many collectors have been puzzled to account for the purpose served by these minute perforations, as well as the method by which they had been drilled through the width of these thin slabs without the risk of fracture. Amongst the Pulsky camei is a perforated Onyx still retaining within the hole the rusted wire on which it was anciently strung.

be expected, it was a favourite substance with the Italian and French artists since the Revival, to whom it was recommended by the lively contrast of colours afforded by it when engraved upon.

Under this head some notice may be taken of the famous signet of Polycrates; the pretended stone of which, a Sardonyx, and not engraved (*intacta illibata*), was shown in Pliny's time set in a golden cornucopia in the Temple of Concord, and there occupying but the last place amongst a multitude of other gems, all deemed of superior value. How came this legend to be affixed to this particular Sardonyx? For Herodotus expressly calls the signet of Polycrates "an Emerald, the work of Theodorus of Samos:" Clemens Alexandrinus adds that the device engraved upon it was a lyre. Lessing, in order to support Pliny's tale, endeavours, with the usual "überklugheit" of a German critic, to prove that σφραγίς does not necessarily signify an engraved gem, and that the expression "the work of Theodorus of Samos" merely refers to the setting of the stone, because this same artist is celebrated for having executed certain works in metal for King Alyattes. But Herodotus says nothing about the gold ring itself: the *Emerald* signet, valuable both on account of the precious stone and of the intaglio by so famous an artist, was the priceless object the sacrifice of which was supposed to be of sufficient importance to avert the wrath of the offended Nemesis. A few years back an Emerald was shown in Rome (said to have been just discovered in the earth of a vineyard at Aricia), which enthusiastic antiquaries looked upon as this far-famed gem. The stone was of large size and fine quality; the intaglio a lyre, above which hovered three bees, or, more probably, "cicadæ," an insect noted by the poets for its musical powers, and which, though of much greater bulk, somewhat resembles in shape a large

drone. This type of the lyre and cicadæ often occurs on antique gems; I have no doubt that it was borrowed from the traditional description of the signet of Polycrates, and was a favourite device with literary men.⁵

The common *Onyx* has two opaque layers, of different colours, usually in strong contrast to each other, as black and white, dark red and white, green and white, and many other varieties. In the Oriental *Onyx*, still a very valuable gem (one the size of a crown-piece selling for 30*l.* at the present day), three layers occur—the top one red, blue, or brown; the middle white, sometimes of a pearly hue; and the base a jet black or a deep brown. The stone is considered more perfect if the top and the bottom layer be of the same colour. The *Onyx* of Theophrastus was composed of white and brownish-red in parallel layers; but, according to Pliny, this variety was distinguished by spots of various colours surrounded by white veins, like so many eyes—an exact description of certain *Agates*.⁶ By cutting out a blue spot with a black zone encircling it, the so-called *Nicolo* is obtained; a stone named by the Romans *Ægyptilla*, “*Vulgus in nigra radice cæruleam facit*,” blue upon a black ground. The name *Nicolo* is an abbreviation of the Italian “*Onicolo*,” a little *Onyx*; and not derived, as is often absurdly stated, from *Nicolò*, an artist’s name. The upper layer of a first-class stone of this kind is of a rich turquoise blue, and the base a jet black. On this gem fine Roman *intagli* occur more frequently than upon any other after the *Sard*. On the other varieties of the

⁵ There are several pretty epigrams in the Greek Anthology (especially one by Meleager) addressed to the *τέρτιξ*, cicada; or *cigala* of the modern Italians.

⁶ In fact, the *Agate* and *Onyx* are the same substance, but the layers in the former are wavy and often

concentric, whilst in the latter they are parallel. Hence in descriptions of camei the terms are often used indiscriminately; the ancients, however, seem at first to have restricted the designation of *Agate* to the stone of black and white strata.

Onyx they are not uncommon ; and a good engraving on a fine Oriental Onyx will command a higher price than upon any other gem. And there is good reason for this preference, since the design penetrating through the surface into the next layer is brought out in full relief by the contrast of colour, and thus is conspicuous at a distance, which is not the case with a transparent stone, for it must be held up to the light to show the engraving.

The use of the Sardonyx was first made fashionable in Rome by Scipio Africanus the elder : the favourite gems of the Emperor Claudius were the Sardonyx and the Emerald.

We may return to the subject of the precious Onyx to observe that, although the true Oriental kind still retains its value, pieces of large dimensions bringing the high price above mentioned, yet the great majority of the stones so called at present by jewellers are almost worthless. These generally present strong contrasts of red and white, or black and white layers. These colours are produced artificially by boiling the stone, a kind of flint, for several days in honey and water, and then soaking it in sulphuric acid to bring out the black and white, and in nitric to give the red and white layers. They all come from Germany, where the secret was either discovered a few years ago, or, as some assert, introduced from Italy. Pliny says that all gems are brightened by boiling them in honey, especially in Corsican (noted for its acidity), although they are injured by all other acids. I have myself seen an antique Agate, which had been reduced by fire to nearly the appearance of chalk, restored to almost its original colour by being treated in this manner for three consecutive days and nights. The antique gems, indeed, particularly the Sardis and the several varieties of the Onyx, are incomparably superior to anything of the kind which we meet with in Nature at the present day ; but it would be

hazardous to ascribe this excellence to any artificial treatment of the stones by the old lapidaries, as it may have been the consequence of their better and more abundant supply of the material from sources now closed to us. This we know was the case with many antique marbles, such as the Rosso and Giallo Antico, the Verde and the Cipollino, all only known at present as existing in fragments of ancient architecture. Numidia is said to have furnished the Giallo; Laconia the Verde; Carystus the Cipollino; but the coast of the Red Sea was the chief source both of the coloured marbles of antiquity and also of many of their most valuable gems.

The enormous dimensions of the pieces of Sardonyx used by the ancient engravers for some of their more important works, as the Onyx of the Sainte-Chapelle, have induced many to believe that they were a production of art. Veltheim goes so far as to say that they were made by fusing obsidian and sulphur together; but this experiment, when tried, gave nothing but a black porous glass. De Boot gives a ridiculous receipt for making the Sardonyx by steeping pounded shells in lemon-juice for several days, and with the white cement thus made forming the upper layer upon a Sard or Carnelian. It is curious, however, to notice that the same idea as to the artificial origin of the Sardonyx appears to have prevailed in the days of Theophrastus; at least, this seems the most natural interpretation of his words ('On Stones,' chap. 61): "Earthy minerals, these assume all kinds of colours, by reason of the diversity of the subjects and of the influences acting upon them; of which, some they soften (by fire), others they fuse and pound, and so put together those stones that are brought from Asia." Now we must remember that the Murrhina, and the *Gemma* of which the huge draught-board (carried in Pompey's triumph) was made, were not known at Rome before the conquest of Asia, long after the age of Theophrastus.

P L A S M A.

This word, sometimes written Prasma, whence the French name of the stone, *Prisme d'Emeraude*, is merely the Italian corruption of *Prasina Gemma*, according to their common vulgarism of interchanging R with L, and *vice versâ*. Thus the Tuscan peasant always says *Leopordo* for *Leopoldo*. This gem is merely *Calcedony* coloured green by some metallic oxide, probably copper or nickel, and is, in fact, a semi-transparent green *Jasper*; and although it often approximates to the finest *Emerald* in colour, yet it is never pure, but always interspersed with black spots, or with patches of the dull yellow of the original species, blemishes aptly named by Pliny "*sal et pterygmata*," grains of salt and bees' wings. But of a pale-green variety pieces *do* occur quite free from flaws and spots; such, however, are probably rather to be considered as varieties of the *Chryoprase*. These last are the true *Prases* of the ancients, so called from their exact resemblance to the colour of the leek, and some of the best stones of this variety will be found quite equal to the *Emerald* in tint, though devoid of its lustre. I have also met with the *Grammatias* of Pliny—"the *Prase* with a white line running through it"—employed as a *Gnostic amulet*; and also the kind "horrent with spots of blood;" specimens accurately determining the species of gem intended under his designation of *Prase*. The commonness of the stone when he wrote is clearly shown by his expression "*Vilioris est turbæ Prasius*," the *Prase* belongs to the vulgar herd.

The *Plasma* was a great favourite with the Romans of the Lower Empire, but not of an earlier date, to judge from the circumstance that, although *intagli* on it are more abundant than on any other stone except the *Sard* and *Carnelian*, yet

I have never met with any of fine work, and antique, in this material. The subjects also of the intagli occurring in it are usually those chiefly in vogue at a late epoch of Rome, such as the Eagle, Victory, Mercury, Venus, and the Graces. I should conclude from this that the stone was a late importation into the Roman world, else it would certainly have been employed by good artists, both on account of its agreeable colour and of its resemblance to Calcedony in the facility of working. I have often met with camei in this stone, but all apparently of the Renaissance period. Its native country is now unknown, but large masses of it are occasionally discovered among the *débris* of ancient buildings in Rome. Several of the green gems distinguished by Pliny by the names of Tanos, Prasius, and Molochites, are now, to all appearance, included under the appellation of Plasma by collectors. Certainly the great variety of the tints and qualities of the stones now called Plasmas indiscriminately would have induced the ancients, whose mineralogical system was entirely based on external peculiarities, to class them under different species. The Molochites (now confounded with the Malachite or carbonate of copper) was quite a different substance, resembling the Emerald, although not transparent, good for making impressions on wax, and worn around children's necks as an amulet. It perhaps was the clear green Jade in which small figures for suspension are so often found. Prismatical beads⁷ of Plasma, as well as of Garnet, are often found in the earth about Rome. They all range nearly about the same size, so that collectors have but little difficulty in forming an even row out of many distinct purchases. Here it may be added that our Malachite was the Chrysocolla

⁷ This tends to prove that one species amongst our Plasmas was the green Jasper of the ancients, who often mention necklaces of Jasper beads, as we shall see in the verses quoted from Naumachius.—Vide *Sapphire*.

of the Romans, a name also given to native verdigris, from its use as a solder for gold work. Nero, as patron of the Green Faction, in one of his fits of extravagance caused the Circus to be strewn with the powder of this valuable ore, instead of the ordinary sand. Antique camei in Malachite, though extremely rare compared with the frequency of modern works in this material, nevertheless *do* exist. Amongst the Pulsky gems is a most lovely bust of a Bacchante, of the best period of Roman art, still retaining in portions the thin hard patina of brown oxide, with which its surface was entirely encrusted when it came into the hands of the present owner—a convincing proof of the ages that must have elapsed since its concealment in the earth.



Prometheus and Ulysses carrying off the Palladium: Greco-Italian. Agate.

JASPERS.

*τὰς βοῦς καὶ τὸν ἱάσπιν ἰδὼν περὶ χειρὶ δοκήσεις
τὰς μὲν ἀναπνεῖν τὸνδὲ χλοηκομέειν.*

Anthol. ix. 750.

“You’ll deem this jasper, deftly graven with cows,
A grassy mead where breathing cattle browse.”

Of this stone the green semi-transparent kind^s was considered the most valuable by the Romans, and to this sort

^s This was the “Jasper” properly so called in the lapidary’s language of the times: “Viret et sæpe trans- lucet Jaspis.” Pliny goes on to notice its former high estimation and subsequent neglect.

refers the pretty epigram of King Polemo (Anthol. ix. 746),
 ‘On a herd of cattle engraved on a green Jasper:’—

“Seven oxen does this jasper signet bound,
 All seem alive within its narrow round;
 Hence lest they roam beyond the verdant plains,
 A golden fold the little herd restrains.”

That spotted with red, now called the Bloodstone, anciently bore the name of *Heliotrope*, or “Sun-turner,” from the notion that if immersed in water it reflected an image of the sun as red as blood, “*sanguineo repercussu*,” and because, also, “when in the air it might be used as a mirror to observe the eclipses of the same luminary, and the moon passing before and obscuring it.” In this kind antique intagli are very rarely to be met with.⁹ On the other hand, they are very frequent in a hard green Jasper mottled with brown, a favourite stone with the Gnostics. A dull yellow variety was also much used by them for their talismans, and also by the engravers of the earlier Mithraic representations. The black, a very fine and hard material, presents us with many excellent intagli of every epoch of the art,¹⁰ as does also the dark-green variety—above all for Egyptian work. The so-called red Jasper is a softer stone, and of a different species; it is now often called *Hæmatite*, but the ancient *Hæmatites* bore no resemblance at all to this substance, for it could be dissolved in water, and was used in medicine, and was, there can be little doubt, nothing more than our *Bole Armoniac*.

Of this red Jasper there are two sorts—one of a vermillion

⁹ It was, however, a great favourite with the early Italian engravers, many of whose works on bloodstone have been sold as precious antiques. They were fond of using it for representations of the Flagellation, or Martyrdoms: ingeniously availing themselves of the red spots on its surface to imitate the issuing blood.

¹⁰ A fragment of one of the finest Greek intagli known, the Medusa’s profile of the Mertens-Schaaflhausen Collection, is on black Jasper.

If any, groaning from the scorpion's dart,
Should sue to thee to heal the venom'd smart,
Bind on the wound, or strew the powdered stone,—
The pain shall vanish and the influence own."



Medusa : Greek. Black Jasper.

GARNETS.

This gem has borrowed its name from the "Granatici," or red hyacinths of antiquity, so called from their resemblance to the scarlet blossom of the pomegranate. For stones of the same colour were promiscuously classed under the same title by the ignorance of the Middle Ages, whence has arisen the strange interchange of names between ancient and modern precious stones so often to be noticed in these pages.

Garnets were largely employed by the Romans and the Persians; though they do not appear to have been much used for engraving upon before a late date, to judge from the fact that splendid stones often occur completely disfigured by the wretched abortions of intagli cut upon them, evidently the productions of the very decrepitude of the art. I have, however, seen a few admirable works of antique skill upon this gem, but they are of excessive rarity, and, in most instances, belong to the Roman school.¹ Portraits of the Sassanian monarchs frequently appear on this gem; in fact, it

¹ The magnificent Atalanta of the Berlin gallery, on a large Carbuncle, and of the finest Greek work, is an exception to this remark.

would seem to have been regarded by the later Persians as a royal stone, from the preference they have given it as the bearer of the sovereign's image and superscription. Pliny says that all the varieties of the garnet "*Carbunculus*" obstinately resist the engraver, and the wax adheres to them in sealing. This remark is quite correct as referring to the soft sealing material used by the ancients, a composition similar to our modelling wax, which is made of beeswax, to which is added a few drops of turpentine, and a little vermilion to give a colour. They also used for sealing a fine pipe-clay called "*creta*," which still continues the Italian term for plastic clay.²

The common Garnet is of the colour of red wine more or less diluted. The Carbuncle, which is always cut *en cabochon*, *i.e.* in a form approaching to the hemispherical, is of a deeper and a richer colour. The Vermilion Garnet shows a considerable admixture of yellow, and often much resembles the dark Jacinth. The Almandine or Siriam Garnet, so called from the district in Pegue whence it now comes, has a tinge of purple mixed with the red, and exactly corresponds with Pliny's description of the *Carbunculi amethystizontes*, which were considered the first of all the varieties of that gem; and this rank it has retained in modern times. It is in truth one of the most beautiful of all the coloured precious stones, and is found in crystals of considerable size.

Garnets and Carbuncles are now supplied in large quantities from the mines of Zöblitz in Silesia; yet even now a stone of a certain size, of good rich colour, and free from flaws, is of considerable value, ranging from 8*l.* to 10*l.* But its estimation has greatly fallen since the times of Mary Queen of

² *Creta* is usually rendered Chalk, but this substance is unknown in Italy: the true Latin term for chalk is probably Marga, and derived from the Gallic name at the time the Romans first saw it in Gaul.

Scots; the pendent Carbuncle to her necklace being valued at 500 crowns—an enormous sum in those days.

The Guarnaccino seems to be a mean between the Ruby and this gem, since it unites the distinctive marks of both, combining the colour of wine with the rosy tint of the former. It is a very splendid stone; fine Roman intagli, and frequently imperial portraits, occur upon it. When of the first quality it can with difficulty be distinguished from the Spinel Ruby. Modern engravers have seldom employed the Garnet except for works in *relievo*, and especially for small portrait cameos. The stone is extremely hard to work, and also very brittle—difficulties which they cannot overcome; a circumstance that affords a much stronger testimony to the skill of the ancient artists, who have left us such highly-finished works in so refractory a material.

A variety, though rare, is sometimes found of a beautiful rose colour, much resembling the Balais Ruby; on this kind I have also seen good intagli, especially one at Rome (in 1848), Apollo seated and playing the lyre, of most admirable workmanship, but the gem accidentally broken in two, a misfortune to which all Garnets are peculiarly liable.

A very similar stone in appearance to this Rose Garnet is produced by roasting the Brazilian Topaz for several hours under hot ashes in a furnace: it thus changes its golden colour into a bright pink, and at the same time acquires additional lustre.

JACINTH.

The modern Jacinth derives its name from the yellow variety of the ancient Hyacinthus, with which it was confounded in the times of barbarism. The greater part, however, of what are now termed Jacinths are only Cinnamon Stones or a reddish-brown kind of Garnet of little beauty or

value. But the true Jacinth belongs to the Jargoon family, distinguished by having for its base the earth zircon, only found in this class of gems. There can be little doubt that our Jacinth was the ancient Lyncurium, a stone described by Theophrastus as resembling amber in levity, colour, power of refraction, and electrical properties. One kind is of a pale yellow, and extremely brilliant: there is also another of a rich orange brown, very agreeable to the eye.

The Lyncurium is thus described by Theophrastus (c. 28):—"This gem (the Emerald) is indeed extraordinary on account of its singular property of tinging water: and equally so is the Lyncurium; for out of this also signet-stones are engraved; and it is very hard, exactly like a real stone; for it attracts in the same manner as amber, some say not only straws and bits of wood, but even copper and iron, if they be in thin pieces, as Diocles also hath observed. It is highly transparent, and cold to the touch, and that produced by the male lynx is better than that of the female, and that of the wild lynx better than that of the tame, in consequence both of the difference of their food, and the former having plenty of exercise, and the latter none; hence their secretions are the more limpid. Those experienced in the search find it by digging; for the animal endeavours to conceal the deposit, and scrapes up earth over it after he has voided it. There is a peculiar and tedious method of working up this substance also, as well as the Smaragdus."

The ancients used both sorts very frequently, both for intagli and for camei; but for the latter purpose they preferred the darker kind, which thus worked is very effective. This deep-coloured gem may have been the Morio, so named from its mulberry colour, which Pliny says was used for engravings in relief "*ad ectypas sculpturas faciendas.*" The style of all engravings on this gem is very peculiar, so as to be

easily recognised even in the impression from such an intaglio. It is characterised by a kind of fluidity and roundness of all the lines, and a shallowness of engraving, perhaps adopted in order to avoid all risk of fracture in working so porous a stone. This porousness is manifest even to the naked eye; for a Jacinth held up against a strong light appears like a mass of petrified honey. The difficulty of engraving on the *Lyncurium* is alluded to by Theophrastus in the above passage; for, after mentioning that signet-stones were engraved out of this substance, he adds, "the working in it is somewhat more tedious" than in other stones: such at least appears to be the meaning of his obscure expression, *γίνεται δὲ καὶ κατεργασία τις αὐτοῦ πλειων*. If this version is correct we have here a distinct allusion to the peculiar style of the engravings in this stone, worked out as they are in a manner composed of flowing and shallow hollows, totally different from that found in other gems belonging to the same period. From the porousness of the stone, intagli cut upon it, in spite of its great hardness, usually have a very worn and scratched surface, so that a Jacinth intaglio, exhibiting a high polish on the exterior, may justly be suspected of being a modern work. Even the interior of the design, unless where protected by the unusual deepness of the cutting, will be found to have suffered in a singular manner from the effects of friction and of time. The finest intaglio in Jacinth at present known is doubtless the full-face portrait called that of Pompey, but more probably that of Mæcenæ, formerly in the Herz Collection, which also derives additional value from the name of the artist *ΑΠΟΛΛΩΝΙΟΥ* engraved upon it. A fine Jacinth is a splendid ornamental ring-stone, and much superior to the best Topaz, as it has a peculiar golden lustre mixed with its rich orange; however, it is at present completely out of fashion, and consequently of little value; such is the unreasoning caprice of the mode.

Pliny indeed denies the existence of a *gem* *Lyncurium*,³ which word, he asserts, is only another name for amber; but the descriptions he quotes of it from Theophrastus and Diocles, who write that it was used for signets, and was of the colour of fiery amber, are quite sufficient to identify it with our Jacinth, a favourite stone with the Greek artists of the age of these two authors. They also distinctly mention its strong attractive property when heated by friction.

As an ornamental stone the Jacinth may be distinguished from the Cinnamon Stone both by its porous texture, and above all by its electricity, a quality only found in the Diamond, Sapphire, Tourmaline, and this class of gems.

Most probably our Jacinth was also reckoned among the varieties of the *Lychnis* by Pliny, who makes this one of his classes of the genus *Carbunculus*. The *Lychnis* got its name from its supposed property of lighting lamps, “a *lucernarum accensu*.” This wonderful power is mentioned by Orpheus, v. 270—

“Dear to the gods, thou canst the sacred blaze,
Like to the crystal, on their altars raise.”

It was divided into two sorts, one with a purple, the other with a red tinge. It possessed the property of attracting light objects when rubbed or heated in the sun, and it was imported from India. These particulars would seem to identify this stone with the Red Tourmaline or Rubellite, which is as electric as amber itself.⁴ Both Jacinths and Carbuncles were obtained by the ancients in masses of extraordinary bulk; Callistratus states that the Indians hollowed

³ So called as being supposed to be formed from the urine of the *Lynx* converted into stone when buried in the earth by that beast.

⁴ Except that the Tourmaline is

too soft a stone to answer the ancient description of the *Lychnis*, which was extremely difficult to engrave.—See *Ruby*.

Carbunculi into cups holding a sextarius, or nearly one pint. I have myself seen a small antique bowl of the size of a Chinese teacup formed out of a single Garnet, and bearing its owner's name, ΚΟΔΡΟΥ, engraved on the inside.

The Lychnis is thus mentioned by Lucian, 'De Syria Dea :'
—"The goddess wears on her head a gem called Lychnis (lamp-stone), a name derived from its nature. From it a great and shining light is diffused in the night-time, so that the whole temple is thereby lighted up as though by many lamps burning. By day its lustre is more feeble, however it still presents a very fiery appearance." Alardus, a Dutchman, writing in the year 1539, caps this story with the following wonderful description of a similar gem :—

"Amongst other stones of the most precious quality, and therefore beyond all price, and not to be estimated by any equivalent of human riches, the gift of that most noble lady Heldegarde, formerly wife of Theodoric, Count of Holland, which she had caused to be set in a gold tablet of truly inestimable value, and which she had dedicated to St. Adalbert, the patron of the town of Egmund ; among these gems I say was a Chrysolampis, commonly called an Osculan, which in the night-time so lighted up the entire chapel on all sides that it served instead of lamps for the reading of the Hours late at night, and would have served the same purpose to the present day had not the hope of gain caused it to be stolen by a runaway Benedictine monk, the most greedy creature that ever went on two legs. He threw it into the sea close by Egmund, for fear of being convicted of sacrilege by the possession of such a gem. Some traces of this stone still remain in the upper border of the before-mentioned tablet."

To this circumstantial narrative we may safely apply the line—

"The tale of the 'jewel' 's a damnable bounce ;"

for the property of phosphorescence is possessed by no other gem except the Diamond, and *this* only retains it for a few minutes after having been exposed to a hot sun and then immediately carried into a dark room. This singular quality must often have attracted the notice of Orientals on entering their gloomy chambers after exposure to their blazing sun, and thus have afforded sufficient foundation to the wonderful tales built upon the simple fact by their luxuriant imaginations.



Sappho: Archaic Greek. Jacinth.



Augur taking the auspices: Etruscan. Jacinth.

EMERALDS.

It has been frequently asserted by writers on gems that the ancients were not acquainted with the true Emerald, which they pretend was unknown in Europe before the discovery of Peru, from whence in the present day the market is exclusively supplied. In spite of the vast numbers of Emeralds occurring in Indian ornaments, both in their native form and rudely cut into pear-drops and "tables," no mines of this gem are known to exist in India; and Tavernier goes so far as to assert positively that all Emeralds used in that country must have been imported from Peru by the way of the Philippine Isles. But if we carefully consider facts, we shall be led to a very different conclusion, and shall find that the ancients were abundantly supplied not merely with the

true Emerald, but also with the Green Ruby, a much harder and much rarer stone, the *Smaragdus Scythicus* of Pliny. We find numbers of these gems, often of great size, adorning antique pieces of jewellery made long before the discovery of America—a fact in itself sufficient to prove the previous existence of the Emerald in Europe, from whatever other region it might have been procured. Large Emeralds, Rubies, and Sapphires, all uncut, adorn the Iron Crown of Lombardy, presented to the Cathedral of Monza by Queen Theodelinda at the end of the sixth century, and which has never been altered since that period. They also appeared in the crown of King Agilulph, also of the same date, although that was probably brought to its latest and more tasteful shape by a famous goldsmith, Anguillotto Braccioforte, in the 14th century, yet still long before the discovery of Peru. They also appear in the cross of Lotharius, a work of the 9th century, and in the crown of Hungary of the 10th, both of which will be fully described in the course of this work. A good Emerald may also be seen in the tiara of Pope Julius II., who died 32 years before the conquest of Peru: this tiara is preserved among the jewels of the Louvre. Cellini also, speaking of the antique gems which he used to purchase of the country people during his residence at Rome (in which line he boasts of having carried on a very lucrative trade with the cardinals and other wealthy patrons of art of that day), mentions his having thus obtained an Emerald exquisitely engraved with a horse's head. This stone was of such fine quality that when recut "it was sold for many hundred crowns." It may here be observed that the horse's head, an attribute of Neptune, would be appropriately engraved upon the sea-coloured stone, and, above all, that the intaglio itself, if of the excellent work described by Cellini, must have been antique, for the art of gem engraving had only

been revived in Italy a few years before his own birth, A.D. 1500.

According to Pliny, the Bactrian and Scythian Emeralds were considered the best of all, on account of their depth of colour and their freedom from flaws—"nullis major austeritas aut minus vitii." Their extreme hardness prevented their being engraved. All these characteristics united point out these gems as the Green Ruby still to be met with, though always a rare variety, among the Rubies and Sapphires of Ceylon. In fact, the stone should rather be called a Green Sapphire than a Ruby. I have seen one of large size from the Hope Collection; its colour was a very dark green, fully agreeing with the term "austeritas," and its freedom from flaws, as contrasted with another true Emerald of the same bulk, was very striking. Hardly any other gem is so liable to defects as the latter stone; even the smallest Peruvian Emerald when cut will show one or more flaws in its substance; indeed the absence of any is of itself sufficient to excite suspicion that the gem is merely a glass imitation, for no precious stone can be more exactly counterfeited by a paste. In consequence of this great liability to defects, no gem varies so much in value as the Emerald, selling at prices varying from 10s. to 3*l.* per carat, according to its clearness and depth of colour.

The Romans derived their principal supply of the true Emerald from Egypt, from the mines in the vicinity of Coptos. Extensive traces of these workings are still to be seen on Mount Zahara, from which Sir G. Wilkinson brought away several specimens of the gem in its quartz matrix, some of which are exhibited in the Mineralogical Department of the British Museum. These are indeed of a bad pale colour and full of flaws, yet incontestably true Emeralds; however, it was not likely that a casual visitor could obtain anything

but the refuse of the ancient miners, and a further working of the veins might produce stones of better quality, and equal to those Emeralds of Imperial times which we shall presently notice. Some were also obtained by the Romans from the copper-mines of Cyprus: these were the worst of all; we need not however suppose, with some theoretical mineralogists, that they were only pieces of green malachite. Pliny gives a copious list of names for gems of a green colour and of various degrees of value, so we can well afford to confine his name of "*Smaragdus*" to the Green Ruby and the true Emerald.⁵ The notion that these Cyprian Emeralds were only malachite is entirely confuted by his description, "that they were of the colour of transparent sea-water," that is, of a light green without any depth of hue. It is said that the tomb of Hermias, a prince of that island, which stood on the coast near the tunny-fishery, was surmounted by a marble lion, the eyes of which were made of these Emeralds, and shot forth such lustre upon the sea as to scare away the fish; nor could the cause be discovered for a long time, until the gems in the eyes were changed. Curiously enough, a marble lion was brought to England last year from Cos, the pupils of whose eyes were very deeply hollowed out, as if for the reception of some gems of an appropriate colour. The Ethiopian Emeralds were found in a mine three days' journey distant from Coptos; they were of a brilliant green, but rarely clear or of the same shade throughout, "*acriter virides sed non*

⁵ The remark of Pliny that "those Emeralds which have a plane surface reflect objects like a mirror" is singularly correct, and attests his accurate acquaintance with the peculiar properties of this gem. For if a large Emerald be held so as to reflect the light, it will assume the appearance of being sil-

vered at the back: its green will disappear when its plane is brought to a particular angle with the ray of light, and it will seem precisely like a fragment of a looking-glass in the same position. This singular change is not observable in any other coloured stone.

facile puri aut concolores." Those brought from Media were improved in hue by maceration in wine and oil; they exceeded all others in size.

I shall now proceed to describe some true Emeralds of undoubted antiquity, which have at different times come under my own notice. A hollow gold ring, the make of which betokened an early date, and which had been found in the island of Milos, was set with an Emerald retaining its native form, a portion of a prism, and rudely polished. The stone was of a beautiful colour, a bluish green, exactly corresponding to Pliny's description of the Chalcedonian Emerald, "like the feathers of a peacock or the neck of a pigeon;" but the stone was very tender and full of flaws. In a very choice cabinet of gems, which afterwards passed into the possession of L. Fould of Paris, were the following antique intagli on true Emeralds, some of considerable size and beauty of colour, and the work of which, as far as my own judgment goes, bears every mark of authenticity:—A bull butting with his head, very spirited, the style of the engraving of the Roman period. Busts of Hadrian and Sabina facing each other.⁶ A lion's head, full face, crowned with the persea, evidently intended for the type of the Egyptian lion-headed serpent, Chneph, the emblem of the sun, afterwards so favourite a device with the Gnostics. This last

⁶ Also an excellent portrait of Hadrian on a very fine Emerald. I have lately seen on this gem, and one of perfect colour, another head, apparently of Sabina. It is curious so large a proportion of the intagli upon so rare a material should belong to the reign of this emperor: perhaps his fondness for Egyptian antiquities and long sojourn in that country may have made the Eme-

erald more fashionable at Rome, and occasioned a more extended working of the mines of Mount Zahara, the chief source of the supply. An extraordinary intaglio of Alexandrian work of this date, a head of Jupiter, surrounded by various emblems, and resting on a crocodile, from the Mertens-Schaffhausen Collection, is also cut upon a true but pale Emerald of considerable size.

gem was a miracle of the glyptic art; the head in the impression from it stood out in full relief, with gaping jaws, expressive of the utmost spirit; while the stone was of the finest colour, purity, and lustre, and in itself of considerable value as a first-rate Emerald.

Among the Herz gems was a bust of Neptune, a full face, on a large pale Emerald with a bluish tinge, with the artist's name, $\Omega\Lambda\Omega\varsigma$, at the side. The execution of the engraving is very fine, and quite in the antique manner. It is cut upon the flat section of a large hemispherical stone, which, after a very careful examination, I have some doubt in pronouncing to be an Emerald, for when held up against the light it has a very blue tinge and a peculiar lustre, leading me to consider it as a very fine Aquamarine, a most appropriate stone to bear the impress of the head of Neptune.

Amongst Hancock's rings, sold Feb. 1858, was a very spirited intaglio, Cupid riding on a dolphin through the waves, the work to all appearance antique, upon a very large pale Emerald, for such the stone was pronounced to be by a jeweller of great experience in the purchase of precious stones. When examined against the light it did not present the peculiar tinge of the Beryl, to which class I was at first disposed to refer it on account of its extraordinary size. It was absurdly described in the catalogue of the sale as a Chrysoprase.

The huge Smaragdi mentioned by Theophrastus when he speaks of one sent by the King of Babylon to the King of Egypt 4 cubits long by 3 wide, and of an obelisk in the Temple of Jupiter 40 cubits high made out of only 4 Emeralds, must have been either certain Green Jaspers, Malachites, or more probably glass. In his own time there was a pillar made out of a single *Smaragdus* standing in the Temple of Hercules in Tyre. Apion, who lived a little

before the time of Pliny, had mentioned a colossus of Serapis then standing in the Labyrinth 9 cubits high, made out of *Smaragdus*. The Alexandrians were always famous for their manufacture of glass, so that these figures and obelisks, although their size is doubtless greatly exaggerated, may have actually existed in some vitreous composition, and been passed off upon the credulous visitor as real Emeralds. Such was the case with the famous Sacro Catino of the Cathedral of S. Giovanni at Genoa, which was said by tradition to have been used by Our Lord at the institution of the Last Supper. It was a large dish of a transparent rich green substance, and believed for many ages to be formed out of a single Emerald of inestimable value, but which the investigating spirit of the French, when masters of the city, speedily tested and proved to be merely glass.⁷ However, it may here be observed that the antique glass Emeralds possess a degree of lustre, colour, and hardness very superior to those of modern pastes. One I have seen at Rome that had been recut and set in a gold ring, that eclipsed in beauty almost every real stone of the kind. In fact, it is a usual practice there, on finding a fine paste Emerald, to have it recut and faceted for a ring-stone, and as such to obtain a high price for it from the unwary dilettante.⁸

⁷ Such was doubtless the famous "Table of Solomon" found by the Arab conquerors in the Gothic treasury of Spain, which their historians describe as a table of considerable size, of one single piece of solid Emerald, encircled with three rows of fine pearls, supported by 365 feet of gems and massy gold, and estimated at the price of 500,000 pieces of gold.

⁸ The Chinese anxiously seek after the thick bottoms of our wine-bottles, out of which they cut very

fine Emeralds, which they sell to the "steamboat gentlemen" at high prices. The Brighton Emeralds, so largely purchased by Cockney visitors, are of similar origin: the old glass fragments, thrown into the sea purposely by the lapidaries of the place, are by the attrition of the shingle speedily converted into the form of real pebbles. These ingenious tradesmen literally thus cast their bread into the water, and find it again after many days.

Nero, who was extremely short-sighted, "*Neroni oculi hebetes nisi quum ad prope admota conniveret*," used to view the combats of gladiators in the arena through an Emerald, "*Smaragdo spectabat*." This stone must have been hollowed out at the back, as many antique gems, especially Carbuncles, are still found to be, and thus have acted as a concave lens to assist his sight in watching the distant scene below the emperor's seat in the amphitheatre. But its power must then have been ascribed to the material, not to the form of the stone, for the looking at an Emerald was then considered as extremely beneficial to the sight—a notion that prevailed as early as the times of Theophrastus, who notices that people wore Emeralds set in their rings for this very purpose. Gem-engravers were accustomed to refresh their wearied eyes, after the excessive straining of them required in their work, by gazing for some minutes upon an Emerald kept by them for that purpose. Had it not been for this confusion of ideas, the invention of spectacles, at least for myopes, would have been anticipated by more than a thousand years. Some commentators have absurdly supposed that Nero used a flat "table" Emerald as a mirror to reflect the distant view of the combat; such writers could never themselves have suffered from the affliction of short-sightedness, or they would have known that to such an eye a reflection of a distant view would be but doubly obscured obscurity.⁹ Any one that has examined the portraits of this emperor on a gem or a well-preserved medal will at once recognise, from the extraordinary size and fullness of his eyes, how very short-sighted he must have been. Curiously enough, myopism is still in Italy almost a distinct peculiarity of aristocratic birth.

⁹ Had the Emerald been only employed on these occasions as a mirror, Pliny would have used the expression "*in smaragdo spectabat*," not merely "*smaragdo*," which can only mean "by the aid of an Emerald he used to view the combats of gladiators."

The Hindoos of the present day are very fond of the Emerald, especially when formed as a pear, and worn as a drop from the ear. They also wear it much in bracelets, and many a glorious gem of this species have they remorselessly ruined by drilling a hole through it for the purpose of stringing it as a bead. One of the finest known was thus to be seen martyred upon the arm of Runjeet Sing. Such stones, in order to be used in European ornaments, must be cut in two to get rid of the perforation; and thus a gem of matchless magnitude is necessarily reduced into a pair of only ordinary dimensions. One of the largest and finest Sapphires that ever came under my notice had been thus cruelly maltreated in order to make an ear-pendant.

It may be added that "Smaragdus" is the Greek corruption of the Sanscrit Smarakata, the gem and its name having been imported together from Bactria into Europe by the traders of that race. Pliny's description of the Emerald will form a suitable conclusion to this lengthy dissertation:—"After the Diamond and Pearl, the third place is given to the Emerald for many reasons. No other colour is so pleasing to the sight; for grass and green foliage we view with pleasure, but Emeralds with so much the greater delight, as nothing whatever compared with them equals them in the intensity of its green. Besides, they are the only gems that fill the eye with their view, but yet do not fatigue it: nay, more, when the sight is wearied by any over-exertion, it is relieved by looking at an Emerald. For gem-engravers no other means of resting the eye is so agreeable; so effectually, by their mild green lustre, do they refresh the wearied eye." After reading this just panegyric, can any one doubt that Pliny was acquainted with the true Emerald, or suppose that he could have applied such terms of praise to the dull Plasma, Jasper, or Malachite, which many writers on gems

have contended that he exclusively meant by the name *Smaragdus*?¹⁰

The Emerald is thus noticed by Theophrastus (*On Stones*, c. 23):—"Of stones there exist also others out of which they engrave signet-stones; some for the sake of their beauty alone, such as the Sard, the Jasper, and the Sapphirus: this last is, as it were, spotted with gold-dust. But the Emerald possesses also some peculiar properties, for it assimilates the colour of the water into which it is thrown to its own colour—the stone of middling quality tinging a smaller quantity, the best sort all the water, whilst the inferior gem only colours that immediately over and opposite to itself.¹ It is good also for the eyes, for which reason people wear ring-stones made of it, for the sake of looking at them. But it is rare, and small in size, unless we choose to believe the histories about the Egyptian kings, for some assert that one was brought amongst other presents from the King of Babylon four cubits in length by three cubits in width; and that there now exist, dedicated in the Temple of Jupiter, four obelisks made out of Emerald, forty cubits long, and four wide on one face, and three on the other. But these accounts rest merely on the testimony of their own writers. Of the sort called by many the Bactrian, that at Tyre is the largest, for there is a column of tolerable size in the Temple of Hercules there; unless, perhaps, it be the spurious Emerald, for there is found such a sort of gem. It exists in localities easily accessible

¹⁰ This, however, is not intended as a denial that many of the numerous *Smaragdi*, the list of which he has extracted from more early writers, were not mere green gems of different species: for the Cyprian *Smaragdus* of Theophrastus is clearly nothing but our transparent Chrysocolla, or copper Emerald, for he

says that it could be used as a solder for gold. Pliny is speaking for himself in the above laudation of the beauties of the true gem.

¹ The meaning is that it will give a greenish cast to the water by the reflection of its own colour, not by *staining* the fluid, as most persons absurdly understand this passage.

and well known, chiefly in two places—in Cyprus in the copper-mines, and in the island that lies over against Calcedon. In the latter spot they find the more peculiar specimens—for this species of gem is mined after, like other metals—and rods² are made of it in Cyprus, quite by itself, and that too in great numbers. But few are met with of sufficient size for a signet-stone, since most of them are too small, for which reason they use it for the soldering of gold, for it solders quite as well as the Chrysocolla; and some even suspect both to be of the same nature, as they are certainly both exactly alike in colour. Chrysocolla, however, is abundantly found both in gold-mines and still more so in copper-mines, as in those of Stobæ. But the Emerald, on the contrary, is rare, as we have observed, and it appears to be produced from the Jasper; for it is said that once there was found in Cyprus a stone of which the one half was Emerald, the other half Jasper—as being not yet completely transformed by the action of the fluid. There is a peculiar mode of working up this gem so as to give it lustre, for in its native state it has no brilliancy.”



Olympic victor: Etruscan Emerald.

² Probably these are the cylindri pendants so often seen in antique of the Romans, the long and slender works.



Idæus or Palæmon: Greco-Italian. Beryl

BERYL.

“ An Indian beryl erst, great Tryphon’s skill
 Has bent my stubborn nature to his will,
 And taught me Galatea’s form to bear,
 And spread with gentle hands my flowing hair.
 Mark how my lips float o’er the watery plain,
 My swelling breasts the charmed winds constrain ;
 Freed from the envious gem that yet enslaves,
 Thou ’lt see me sport amid my native waves.”

ADDÆUS,³ *Anthol.*, ix. 544.

The Beryl is of little value at the present day, both in consequence of its extreme softness and of the abundance in which it is now produced in many parts of the world, and that, too, often in masses of enormous magnitude, whose size reminds one of the monstrous Smaragdi spoken of by Theophrastus and Apion. In the British Museum are two Beryls from Acworth, New Hampshire, one of the weight of 48 lbs., the other of 83 lbs. This stone is of the same chemical constitution as the Emerald, the basis of both being glucine in almost the same proportion, but it is much softer, and yields to the file.

³ Addæus was an Alexandrian epigram, therefore, fixes the date of poet under the first Ptolemies. This the engraver Tryphon.

I have met with but few indubitably antique intagli in this stone,⁴ although it was subsequently a favourite material with the artists of the Renaissance and later times. Antique engravings on Beryl are almost as rare as on the Emerald: but those on the former stone, as far as my experience goes, all belong to an earlier period, being usually fine works of the Greek school, whilst I have never met with intagli on Emerald which were not clearly of Roman work. Besides the Taras on the Dolphin, already mentioned, one of the most exquisite relics of Magna Grecian art in existence, a Cupid similarly mounted, also on a fine Beryl, is one of the chief ornaments of the Cracherode Collection in the British Museum. This stone was of the same degree of rarity amongst the ancients as the *Smaragdus* itself, for it was then obtained from India alone. It is the vast supply from Germany and America that has so sunk the value of this gem in modern times. It possesses very great lustre, and the lighter variety is often used in jewellery, under the name of Rhine Diamond: and persons have often flattered themselves with being the owners of a true Diamond of enormous value, which, on examination by a skilful lapidary, has proved to be merely one of these comparatively worthless stones.

This was the only gem faceted by the Romans, who cut it into a sexangular pyramid, as otherwise it had no lustre. Beryls were highly prized at Rome, both for the purpose of ear-drops, and of ornamental, *i. e.* not engraved, ring-stones. When Cynthia's shade appears to Propertius he remarks that—

“ Et solitam digito beryllon adederat ignis.”

⁴ The finest among these few is the Taras riding on a dolphin, of the Merteus-Schaathausen Collection, a Greek work of the highest merit. In the same collection are a few more intagli on Beryl of fair Roman work.

“ The funeral pile had with its fire defaced
The sparkling beryl which her finger graced.”

A line affording a proof, if any were wanted, that the favourite rings of the deceased were burnt together with the corpse; a fact which fully accounts for the number of fine intagli, partly or wholly calcined, which every collector meets with not unfrequently, and often with the greatest regret at the destruction of some matchless specimen of the skill of the engraver.

The Indians had the art of tinging crystal so as to pass it off for the Beryl.⁵ They also cut this stone into long cylindrical beads, and wore them strung on elephants' hair, believing that their lustre was heightened by the perforation. But the most perfect in colour were not bored, but used for wear by having each end secured by a gold boss.

It is a curious fact that Beryllus is the low Latin term for a magnifying glass; hence the German “Brille,” spectacles. Nicolas de Cusa, Bishop of Brixen (who died 1454), gave the name of *Beryllus* to one of his works, “because by its aid the mind would be able to penetrate into matters which otherwise it would be unable to penetrate.” And in his second chapter he says, “The Beryl is a shining, colourless, transparent stone, to which a concave as well as a convex form is given by art; and, looking through it, one sees what was previously invisible.” Probably the first idea of this invention was got by accidentally looking through a double convex and clear Beryl (or one cut *en cabochon*, a very usual

⁵ At present the Indians paint the back of every coloured gem they set to improve the colour, for which reason they never set them transparent. From this deceitful practice of giving a false beauty to the stones, those set in Indian ornaments are, when taken out, rarely found to be of much value, as all of high intrinsic value are sold to the European market, the inferior samples, when painted, being considered good enough for the native jewellery.

form of ancient transparent stones), and thence concluding that a clear piece of glass of the same shape would produce the same effect. Thus the observer by induction was led to apply a similar fact to that of Nero's use of his Emerald lorgnette to the working-out of a most important result; through the happy thought that the marvellous effect was due not to the material, but to the shape of the stone.



Apollo - Greek work. Amethyst.

AMETHYST.

Α' λίθος ἔστ' ἀμέθυστος, ἐγὼ δ' ὁ πῶτας Διόνυσος
ἢ νήφειν πείσει μ' ἢ μαθέτω μεθύειν.

Anth. ix. 748.

“ On wineless gem I toper Bacchus reign;
Stone, learn to drink, or teach me to abstain.”

The common Amethyst is only crystal coloured purple by manganese and iron. The deeper the tint, the less brilliant is the stone; for which reason the ancient engravers preferred the light-coloured variety, which of all gems, next to the Jacinth, possesses the greatest lustre. This pale kind was supposed by Lessing and many others to be the Hyacinthus of Pliny, which, according to him, differs from the Amethyst, “inasmuch as the violet splendour of the Amethyst is diluted in this gem, and, so far from filling the eye, does not even

reach it, fading away more speedily than the flower of the same name." This *flower*, it may be observed by the way, was not our hyacinth, a bulb derived from Persia, but the blue iris, or fleur-de-lys, the blossom of which only lasts one day. This appears from Ovid's elegant account of the origin of the plant from the blood of the youth Hyacinthus:—

"Flos oritur formamque capit quam lilia, sinon
Purpureus color hic argenteus esset in illis."

"Formed like the lily, springs a flower to light,
But robed in purple, not in silver white."

But we shall prove in the next chapter that the ancient Hyacinthus stone, as described by Solinus, agrees with the modern Sapphire in every particular; and we have already seen that the stone, now called the Jacinth or Hyacinthe by the French, was the Lyncurium of the ancient lapidaries.

Pliny mentions the suitableness of the Amethyst for engraving on, "*sculpturis faciles*," a sufficient proof that no species of this stone was the Hyacinthus, which Solinus calls the hardest of all gems, and only to be touched by the diamond point.

Intagli of all dates and of every style of work occur on Amethyst, but usually on the light-coloured sort: in fact, an engraving on a dark stone may be suspected of being modern. I have, however, seen a fine Greek intaglio—a full-faced head of Pan, the Mask of Terror—upon a dark-coloured Amethyst, the antiquity of the work of which could not be called in question. Scarabei also, both Egyptian and Etruscan, are by no means uncommon in this stone; and Roman intagli in it are

* The *lilium* was probably the white fleur-de-lys, to judge from the Italian giglio. The giglio of the arms of Florence was first argent, but after changed to gules,

to typify, according to the satirical remark of Dante, the constant civil wars of that State,

"per division fatto vermiglio."

sufficiently abundant, though not often of good execution. Amongst the finest gems of the Pulsky Collection is the head of a Syrian king upon a large and pale Amethyst, engraved with the artist's name, NEAPKHZ. Small heads and busts, in full and half relief, are frequently found executed in this stone, which have probably served to complete statuettes in the precious metals.

The name (though probably derived from the Indian word for the stone) was by the fanciful Greeks interpreted as if formed from their own language, and thereupon the gem was invested by them with the virtue of acting as an antidote to the effects of wine. Hence the point of the epigram prefixed to this article, and also of another by Asclepiades or Antipater of Thessalonica (Anth. ix. 752):—

“ A Bacchante wild, on amethyst I stand,
The engraving truly of a skilful hand ;
The subject's foreign to the sober stone,
But Cleopatra doth the jewel own ;
And on her royal hand all will agree
The drunken goddess needs must sober be.”

Even in the last century this stone was still held in high estimation. Queen Charlotte's necklace of well-matched Amethysts, the most perfect in existence, was valued at 2000*l.* ; at present it would not command as many shillings—so great has been the importation of late years of German Amethysts and Topazes (purple and yellow crystals of quartz), which are dug up in endless abundance in the Siebengeberge on the Rhine, where they are cut and polished by steam-power, and despatched into all parts of Europe to be made up into cheap articles of jewellery. They are also found plentifully about Wicklow in Ireland. These occidental stones are of a deep, rich hue, but have very little brilliancy: formerly they were largely imported from the

East Indies, and *these* were light coloured, but extremely lustrous. In modern usage the Amethyst is the only stone it is deemed allowable to wear in mourning.⁷

We may here mention the true oriental Amethyst, a very rare and valuable stone, being in reality a purple Sapphire, but its purple has little of the redness of that seen in the common Amethyst, but is rather an extremely deep shade of violet. It is a much rarer stone than the ordinary blue Sapphire, but very inferior to it in beauty. English jewellers absurdly call the common Amethyst, if very bright and of two shades of colour, by the name of Oriental; a stone which in reality few of them in all their experience have ever met with.

SAPPHIRUS — HYACINTHUS.

That the Sapphirus of the ancients was our Lapis-lazuli is evident from Pliny's description of it, "that it came from Media (whence the entire supply of the latter stone is brought at the present day), that it was opaque, and sprinkled with specks of gold, and was of two sorts, a dark and a light blue. It was considered unfit for engraving upon in consequence of its substance being full of hard points," the small spots of yellow pyrites which appear like gold. Nevertheless both intagli and camei of Roman times are frequent in this material, but rarely any works of much merit, though fairly executed Roman intagli in it are not scarce.⁸ With Italian

⁷ The colour of the Amethyst can be dispelled by a careful roasting in hot ashes. Hence, in the last century, when it was desirable to obtain a suite of stones of the same shade, the jewellers were able to obtain this result by subjecting the several Amethysts to the heat for

a greater or shorter time until they were all brought to the same tint of purple.

⁸ I have lately seen a very fine head of Alexander the Great on a large and fine-coloured Lapis-lazuli, the reverse of the stone engraved with full-length figures of Apollo

artists it has been a great favourite, especially for engravings in relief and for busts of statuettes. A serious defect of this substance is that it loses its beautiful azure by exposure to heat and moisture, and assumes a chalky appearance. It has been asserted positively by many modern mineralogists that the Cyanos of Pliny was our Sapphire; but this opinion is by no means borne out by his description of the former stone:—"The Cyanos shall be noticed separately, a favour granted to the blue colour lately mentioned (when speaking of the blue Jasper). The best sort is the Scythian, then the Cyprian, and last of all the Egyptian. It is very largely imitated by staining crystal, and a certain king of Egypt has the credit of having first discovered how to tinge crystal this colour. This also is divided into male and female. There is sometimes gold-dust seen within it, but different from that in the Lapis-lazuli. For in the latter the gold shines in points or specks amidst the azure colour." This mention of the gold-dust visible in the Cyanos, but only *occasionally*, would lead us to conclude it to have been the *clear* variety of the Lapis-lazuli, pieces of which sometimes occur entirely free from the golden specks of pyrites. Or it may have been a bright crystal of the sulphate of copper, which is in its native state nearly transparent and of considerable hardness. Whatever it was, it was clearly not the present precious stone the Sapphire.

What the Cyanus really was may be deduced from the following passage of Theophrastus (c. 55):—"And as there is a Red Ochre both natural and artificial, so is there a Cyanos, also both produced naturally, and made by art like that

and Venus with Cupid. The intaglio was pronounced by the German antiquaries to be coeval with Alexander; to me it rather appears

middle Roman work, and may have been the ornament of a lady of the family Macriana.

manufactured in Egypt. Of the Cyanos there are three kinds—the Egyptian, the Scythian, and a third the Cyprian. The Egyptian is the best for thick-bodied paints, but the Scythian for those of a diluted kind. The Egyptian is produced artificially, and the writers of the history of their kings mention this also, which of the kings it was who first made a fused Cyanos in imitation of the natural stone; and that this mineral used to be sent as a present from other regions. From Phenicia, however, it was brought as a fixed tribute, an appointed quantity of Cyanos, so much in its native state and so much calcined. The persons who grind up paints say that the Cyanos produces of itself four different shades of colour; the first, made from the thinnest pieces, being the lightest; the second, from the thickest, giving the darkest tint.” This artificial substance is the blue enamel so universally used in all Egyptian works in terracotta, and made by fusing together copper filings, powdered flint, and soda, in imitation of the native sulphate of copper, the true Cyanos. This antique invention is still employed by enamellers under the name of Zaffre.

HYACINTHUS = SAPPHIRE.

‘Α σφραγὶς ὑάκινθος, Ἀπόλλων δ’ ἐστὶν ἐν αὐτῇ
καὶ Δάφνη, ποτέρου μᾶλλον ὁ Λητοῖδας;

Anthol. ix. 751.

“ Engraved on Hyacinth fair Daphne shines
With Phœbus; say to which his heart inclines?”

That the Hyacinthus of the ancients was the Sapphire of the present day will be clear to every mineralogist who will carefully consider the minute description of the gem given by Solinus:—“ Amongst those things of which we have spoken (in Ethiopia) is found also the Hyacinthus of a shin-

ing sky-blue colour; a precious stone if it be found without blemish, for it is extremely subject to defects. For generally it is either diluted with violet, or clouded with dark shades, or else melts away into a watery hue with too much whiteness. The best colour of the stone is a steady one, neither dulled by too deep a dye nor too clear with excessive transparency, but which draws a sweetly coloured tint (flore) from the double mixture of brightness and purple. This is the gem that feels the air and sympathises with the heavens, and does not shine equally if the sky be cloudy or bright. Besides, when put in the mouth it is colder than other stones. For engravings indeed it is by no means adapted, inasmuch as it defies all grinding (*attritum respuat*); it is not however entirely invincible, for it is engraved upon and cut into shape (*scribitur et figuratur*) by the diamond." In the preceding passage Solinus has spoken of the production of cinnamon in the same district, which, as the native country of this spice, must have been situated on the Indian Ocean. The importations from India and from Ethiopia would naturally be confounded together, since the produce of all these eastern regions came to Alexandria by the way of the Red Sea.

We have already noticed Pliny's account of the Hyacinthus; it agrees in the main with the above, although his description of the gem is by no means so particular as that of Solinus; who, to judge from his style, probably flourished two centuries later than the former writer.⁹ The great commercial intercourse with India, established after the age of Trajan, had by that time made the Romans much better acquainted with the Indian gems. At present all our best Sapphires come from Ceylon; the only place in Europe

⁹ The first author who quotes him is the grammarian Priscianus, in the fifth century.

where they have been found being a brook near Expailly, in France; but these are all of a pale colour and small size. The ancients obtained their Hyacinths from the beds of torrents, just as the Cingalese do Sapphires at this day; for the gem never occurs in the matrix, but always in rolled masses mingled with the gravel. This peculiarity of their origin is elegantly alluded to by Naumachius in his 'Marriage Precepts,' v. 58:—

“ Dote not on gold, nor round thy neck so fair
The purple hyacinth or green jasper wear ;
For gold and silver are but dust and earth,
And gems themselves can boast no real worth ;
Stones are they, scattered o'er the pebbly coast,
Or on the torrent's brink at random toss'd.”

Curiously enough, there is preserved amongst the antiquities found at Richborough, now in the library of Trinity College, Cambridge, a portion of a necklace formed of small rough Sapphires, drilled through the middle of each stone and linked together with gold wire, doubtless the very kind of ornament alluded to by Naumachius in the above lines.

Some of the varieties of the Adamas of Pliny were evidently Sapphires, to judge from the terms he uses in describing them: “*laterum sexangulo lævare turbinatus in mucronem* ;” for this six-sided smooth and pointed crystal is the primitive form of the Sapphire. The steel-colour and great weight¹⁰ which he assigns to the Siderites also prove the same, for no other term could so aptly describe the tint of the unpolished light Sapphire. The “*aereus color*,” also, of his Cyprian adamant is the sky-blue of our best Sapphire, its hue being the exact shade of the “air” or

¹⁰ The specific gravity of the Sapphire is actually one degree greater than that of the Diamond.

atmosphere in the climate of Rome.¹ It is also stated of this variety that, besides its blue tinge, it could be perforated by means of another Diamond, *i. e.* of a true Indian stone, to which alone the Sapphire yields in hardness. The light-coloured Sapphires can be rendered entirely colourless by exposure to intense heat for some hours, and acquire also great brilliancy, so as often to be passed off for real Diamonds. The engravings on Diamond ascribed to Jacopo da Trezzo and other artists of the Renaissance were in reality upon this material, or else on white Topaz. Antique intagli in Sapphire that have come under my inspection are the following: a head of Julius Cæsar, the stone an octagon and of the finest deep colour; a head of Phœbus, full face and surrounded by rays, on a pale stone of nearly hemispherical shape, the work extremely spirited but not of so decidedly antique a character as the first mentioned (from the Herz Collection); a magnificent head of Jupiter, inscribed *ΠΥ*, supposed to be the signature of Pyrgoteles himself, but more probably the owner's name, engraved on a pale Sapphire, the back of which was somewhat globose and highly polished. This stone was nearly an inch in diameter, and was discovered forming the ornament of the pommel of the handle to a Turkish dagger, the intaglio being entirely concealed by the setting, "the Sapphire being set as a stone cut *en cabochon*, the flat face downwards." This furnishes an additional proof of its authenticity, and shows that the gem had been picked up by some Oriental who looked to nothing but the value of the material and utterly disregarded the art displayed upon it. This intaglio was, in the opinion of the best judges, one of the finest productions of the Greek school. A head of Alexander as represented on his drachmæ,

¹ "Aeris ecce color tum cum sine nubibus
aer." *Ovid, A. A. iii. 174.*

"The colour of the air we view on high,
When not a cloud is seen through all the
sky."

and of the same size as that coin, on a pale stone streaked with indigo, the execution of the intaglio in a flat, peculiar manner, very similar to that of the gems assigned to the cities of Magna Grecia, and indubitably antique.² Of intagli of a later date the Pulskey Collection can boast of a portrait of Pope Paul III., by the famous Alessandro Cesati, on a beautiful Sapphire three-quarters of an inch square, a truly inestimable gem both for the fineness of the stone and the spirit and life of the engraving.

This stone derived its ancient name Hyacinthus from the resemblance of its colour to the blue fleur-de-llys fabled to have sprung from the blood of Apollo's favourite Hyacinthus, and to bear inscribed on its petals ΑΙΑΙ, the cry of grief of the god, an inscription still to be seen there. This sameness of names, of the boy and of the stone, gave the origin of the epigram at the beginning of this article.

The modern name of Sapphire is due to its colour; the

² Another very important intaglio of clearly antique Roman work, on a large pale stone, has lately come under my notice. The subject is two actors, the one in front seated, and both bending over a comic mask lying on a low altar (the Thymele) in front of them. The principal figure is wrapped in a toga, and holds in his hand the usual crooked stick, the badge of the comedian. On the back of the chair hangs a huge tragic mask. The intaglio appears of the date of the Middle Empire. In the possession of the same collector is a small Etruscan scarabeus on a very pale stone; a proof how early that people had attained the skill of working in this most difficult material. But the most important antique piece in Sapphire that has ever been dis-

covered is a cameo (now in the possession of Mr. Eastwood), presenting the well-known subject of Hebe and the Eagle, cut in half-relief on a heart-shaped stone of fine colour, 1½ inch long by 1¼ wide. The work is apparently of the time of Hadrian, and is of considerable merit, though producing but little effect, from the clouded surface of the gem upon which such wonderful patience and skill have been lavished: a circumstance of itself attesting the late period of its execution. The stone has a hole drilled through its longer axis, evidently done in India, that it might be worn as a bead, before it was purchased by the Roman dealer, and subsequently engraved as a cameo; for the work in one place has cut down into the perforation.

ancient Sapphirus or Lapis-lazuli furnishing the paint ultramarine, "sapphirinus" came to signify "azure;" and we find the blue varieties of the precious Corundum already called Sapphirini by Camillo Leonardo at the end of the 15th century, to distinguish them from the red and yellow varieties (Ruby and Oriental Topaz) of the same family. The Hyacinthus of the classic writers is always the blue kind; but Marbodius, in the 11th century, already makes the three divisions above noticed, the blue, red, and yellow, and, with an accuracy surprising for that early period, refers them all to the same family—the modern mineralogical classification.

At the Renaissance the price of coloured gems of perfect quality far exceeded that of the Diamond; and as a curiosity I give Cellini's table of their comparative value, from his 'Orificeria'—

Ruby (of one carat weight) = 800 gold scudi.					
Emerald	..	..	..	400	„
Diamond	..	..	..	100	„
Sapphire	..	..	..	10	„

The gold scudo equalled a half-sovereign in weight, but was of far greater value on account of the difference in the worth of money. This, however, was not so great at the time he wrote (about 1560) in Italy, *then* the richest country of Europe, as it was in England, where the difference between the value of money then and now is usually computed as fifteen to one. At the present day a perfect Sapphire or Emerald of one carat will sell equally for 3*l.*, a Diamond brilliant-cut for 8*l.* A Ruby of a carat is worth the same as the two first; but if it should weigh more than two carats and be perfect, its value far exceeds that of the Diamond. I have seen a perfect Ruby, weighing four carats, that had been bought for 300*l.*; a Diamond of the same weight would

only have been worth 160*l*.³ Vossius mentions a Ruby belonging to the Emperor Rudolph II. as large as a small hen's egg, and valued at 60,000 ducats, or 30,000*l*. The King of Ava possesses *at present* one even larger, and quite perfect in colour and in water, set as an ear-drop. Its value is inestimable and far beyond that of a Diamond of similar dimensions.

RUBY.

The name of this stone is merely an epithet of its colour, as being the *red* variety of the Hyacinthus. For the same reason Marbodius calls the same gem "Granaticus," from its resemblance to the vermilion blossom of the pomegranate. This was probably the *anthrax*⁴ of Theophrastus, of which he says that a very small stone used to sell for forty gold staters (about forty guineas), a statement which could not apply, at that period of high civilisation and extensive commerce with all regions, to the Garnet or Carbuncle, a common stone and produced abundantly in many parts of Europe. It must also be included among the numerous species of the Carbunculus described by Pliny, although he gives the first rank to the Carbunculi Amethystizontes, our Almandines⁵ or Garnets of Siriam. One of the qualities which he assigns to the Carbunculus, that of not being affected by the fire, whence they were called Acausti, only applies to the Ruby, for the Garnet easily fuses into a dark globule of oxide of iron.

³ I have been assured by a person of great experience in precious stones, that he has inspected a perfect Ruby, weighing only eleven grains, which had been sold for 1100*l*., or 100*l*. per grain!—probably the highest rate at which a precious stone has been estimated since the times of the famous Opal of the senator

Nonius.

⁴ This name signifies a live coal, because it is red in colour, but held against the sun assumes the appearance of a burning piece of charcoal.

⁵ So called from resembling in colour the blossom of the almond-tree, a purplish pink.

Henckel relates an experiment in which a Ruby was sufficiently softened by means of a powerful burning-glass to receive the impression from a Jasper intaglio without the slightest detriment to its original colour and hardness when it became cold.

It is almost certain that this gem was the ancient *Lychnis* already mentioned under "*Jacinth*." All that Pliny says of it is, "Of the same family of blazing stones is the *Lychnis*, so called from its lighting up lamps (or, perhaps, lighting up by lamplight, *lucernarum accensu*), but yet of extraordinary beauty. It is produced near *Orthosia* and in the whole of *Caria* and the neighbouring regions; but the most esteemed in *India*, which sort some have called a *Carbuncle* of milder hue. The second in rank is the *Ionia*, so called from its similarity to the flower of the same name (the Greek *ιον*, or red cyclamen). And amongst these sorts I find there is a difference; one kind has a purple lustre, the other a red (*cocco*): warmed in the sun or by friction with the fingers, they attract straws and scraps of paper." The description of it given by *Solinus* is, as before, more definite; he calls the stone *Lychnites*, because it shines most by lamplight: it is both of a transparent purple and of a light red, and attracts bits of thread, straws, &c., when rubbed or heated in the sun. It is very difficult to engrave, and *then* pulls away the wax as if by a bite—"velut quodam animalis morsu." Now all these qualities can be found united in no other gem than the Ruby: the best still come from *India* (though inferior ones are sometimes found in *Bohemia*). The finest Ruby shines with the red of the cochineal (*cocco*), the *Balais* is often quite of a lilac colour (*purpura*): they are only surpassed in hardness by the *Sapphire* and the *Diamond*; in fact, none but *Oriental* artists ever attempt engraving on them in modern times. I have not yet had an opportunity of

trying whether the scarlet Ruby is electric; but, from its belonging to the same class as the Sapphire, it probably will be found to possess that property. In my own collection is an antique intaglio, a head of M. Aurelius, cut on a gem exactly answering to this description of the *Lychnis*: its colour is a curious mixture, a yellowish red, appearing purple or lilac when held against the light, and at a certain angle presenting shades of blood-red: the stone itself is as electric as amber, and apparently of excessive hardness. It was pronounced by a very experienced lapidary to be a *Spinelle Ruby*, but more probably it should be termed a *Balais*.

The Romans experienced the same difficulty as exists at the present day in distinguishing the various sorts of the *Carbunculus* from each other, in consequence of the practice of jewellers of backing them with various foils so as to improve their colour, "*tanta est in illis occasio artis, subditis per quæ translucere cogantur.*" This delusion is especially to be observed in works of the Renaissance, where *camei* portraits, set in rings, often appear like the finest Rubies, but are in fact only Garnets backed with a ruby foil. It was also believed, in Pliny's time, that the dull-coloured *Carbunculi* could be made lustrous by maceration in vinegar for the space of fourteen days, and that the effect lasted for the same number of months. These gems were also imitated so well in paste, that the false ones could only be distinguished by their inferior hardness. And this is exactly true, for I have met with an antique paste bearing a splendid intaglio of a Medusa's head, which could with difficulty be known not to be a real Carbuncle; it even showed all the flaws within its substance, which the real stone always presents.⁶

⁶ These flaws are produced purposely, by letting the paste cool suddenly on its withdrawal from the furnace.

True Rubies, and of good colour, uncut, but rudely polished, occur both in ancient jewellery and set in antique rings. In the Herz Collection was a necklace formed of rough Rubies and Emeralds of fine colour of the size of horsebeans, drilled through and linked together with strong twisted gold-wire, in a similar manner (but much more substantially) to the Sapphire necklace from Richborough, already described. The Ruby, though of the same chemical composition as the Sapphire, yields to it in hardness; but yet antique intagli are even rarer in it than in the former stone. In fact, the experienced Lessing, as well as the Comte de Clarac, altogether deny the existence of any really antique intagli in these harder gems, but the instances already adduced under "Emerald" and "Sapphire" sufficiently prove that this dictum, though generally true, yet admits of some rare exceptions. It may also be remarked in this place that engravings on any of the *precious* stones are always to be examined with the greatest suspicion, modern artists engraving for wealthy patrons having found it their interest to employ such substances as recommended themselves to their purse-proud employers by the mere value of the stone (a thing which at least they could appreciate), as well as by the art thereupon displayed, which was frequently to them but a minor consideration. The ancient artists, on the contrary, chose such stones as were best suited for the execution of the work, and to give the most perfect impression of it when required for use as a signet; always, for these reasons, preferring the Sard, on which more engravings by the famous artists of antiquity are to be found than upon all the other gems put together. Entirely devoted to the one object, that of attaining to perfection, they entirely disregarded the paltry merit of overcoming obstacles by the fruitless waste of their invaluable time; neither did they seek for glory by

the preciousness of the material of their work rather than by the excellence of the work itself.

The following are the only intagli on Ruby that I have met with of apparently indisputable authenticity:—A head of Hercules, in the Webb Cabinet, of good bold work, the stone of small size, and bad colour, and full of flaws. A magnificent head of Thetis, wearing a helmet formed of a crab's shell, of the finest Greek work as far as the style can guide one's judgment, engraved on a large irregular stone of a beautiful rose-colour: it belonged to the Herz Collection, where, however, it was classed among the Cinque-Cento gems. On a pale Ruby, too, occurred the very finest intaglio I have ever beheld, a full face of a Bacchante crowned with ivy; the expression of the countenance full of a wild inspiration, and the exquisite treatment of the hair and the flesh beyond all praise,—a true masterpiece of the best days of the Greek glyptic school. At the side was the name ΕΛΛΗΝ in very minute and elegant characters, a name which was previously known as occurring upon an admirable bust of Harpocrates. This gem was pronounced antique by the best judges in Paris, and is now in the Fould Collection.

TOPAZ = CHRYSOLITE, CHRYSOPRASE.

The ancient Topaz⁷ was the present Chrysolite or Peridot, as clearly appears from the description of it as being imported into Europe from the Red Sea, of a bright greenish-yellow, a colour peculiar to itself (in suo virenti genere), and the softest of all the precious stones, yielding readily to the file. The Peridot is extremely difficult to polish so as to

⁷ Pliny oddly derives Topazion "to seek," because the island where from "topazein," which he says in it is found is often lost amidst thick the "Troglodyte" tongue means fogs.

bring out all its brilliancy, and this can only be done by a peculiar process, known but to few lapidaries, in which vitriol is employed.

Theophrastus (c. 27), speaking of the *Smaragdus*, says, "There is a certain mode of working this stone so as to give it lustre, for in its native state it has no brilliancy." It is very likely that he has the Peridot in view in this passage, for in his age the coast of the Red Sea was the only source of the supply of the true Emerald, as well as of the Peridot or Topazion; which last, by the way, Pliny classes in his description as next in order to the *Smaragdus*. It was found in pieces of such size as to allow of a statuette of Queen Arsinoë, in whose time it was first brought to Egypt, to be carved out of a single gem. All these characteristics are combined in our Peridot, a stone on which I have rarely seen antique engravings, although such of modern times are sufficiently abundant. Its extreme softness probably deterred the ancients from using it for engraving upon, as it soon wears away when carried on the finger.⁸ It was highly valued still in Pliny's age, though somewhat fallen in estimation from the time of its first discovery, when it was preferred to all other gems.⁹

In compensation for this exchange of names the ancient

⁸ I have, however, met with two Roman intagli, both figures of Minerva, upon this stone, and now possess a Medusa's head, cut in the bold, grand style of the period of its first introduction into Alexandria, in a large and very globose Peridot: an extraordinary gem, both for workmanship and rarity of material.

⁹ Were it not for its softness this would be one of the most desirable of all gems as an ornament: by candle-light especially it has all the

lustre of the Diamond, and appears of the purest water, its colour not being then discernible. The Chrysolite differs from the Peridot in being much harder, as well as of a yellower tint; for in it the yellow predominates over the green. In the Peridot green is the prevailing colour, modified by yellow: the stone, in fact, in the rough, much resembles a rolled pebble of bottle-glass or Brighton Emerald.

Chrysolithus is the present Topaz. The best kind is a yellow variety of the Ruby, of equal value and hardness with that gem, and very rare; Dutens values it at a third higher than the Sapphire. But most Topazes come now from Brazil; they are much softer, and of a different chemical composition from the Ruby; and besides the orange, there are white, red, and blue varieties of this stone, only to be distinguished from the Diamond, Ruby, and Sapphire by their much greater softness.

The Chrysolithus was the only gem set transparent by the Romans, who seem never to have engraved it. All other stones were foiled with aurichalcum, *i. e.* a red foil of copper and gold. In confirmation of this remark of Pliny, I may observe that, on taking out a Sard intaglio from the oxidised remains of an antique iron ring, I found it backed by a thin plate of gold of a reddish colour, very different to the fine gold usually employed in ancient jewellery. Both Cellini and Winckelman have noticed this ancient practice of backing transparent intagli with a leaf of gold, which in fact shows off the engraving to greater advantage, when in wear, than if the stone according to the modern fashion were set open. Pliny mentions the practice of backing Carbuncles with silver foil, a method still used, and the best if the stone be of good quality. The use of coloured foils is a mere deception, and the sole end that the setter has had in view is to impose upon the unskilful by thus imparting to an inferior gem the finest colour of its own class.

The Chrysoprase is an opaque, apple-green stone of a most agreeable hue, and extremely hard; its material is calcedony coloured by oxide of nickel. It is much of the same nature as the Plasma, but differs from it in the brightness of its tint, in its hardness, and in its opacity. Intagli are sometimes met with cut upon a stone which is either the true

Chrysoprase, or else a Plasma very nearly approaching to it in beauty.¹⁰ At present this gem is only found at Kosemütz in Silesia.

TURQUOIS.

This stone agrees pretty well with the description of the ancient Callais : " which grew upon its native rock in shape like an eye, was cut, not ground into shape, set off gold better than any other gem, was spoilt by wetting with oil, grease, or wine, and was the easiest of all to imitate in glass. It was also the most favourite ornament of the Carmanians of that day,"—an observation equally applicable to the modern Persians, who lavish it in profusion over all their ornaments and weapons. Many supposed antique intagli and camei are shown cut in this gem ; but I suspect the authenticity of all that have come under my inspection. From the rapid decay of this substance when exposed for a few years to the light and to moisture, there can be little doubt that any intaglio of Roman times executed in Turquoise would long ere this have been reduced to a chalky mass. This actually is the case with such gems set in ornaments but a few centuries old, and which have lain underground for part of that period. The mediæval notion concerning this change of colour was that the Turquoise grew pale on the finger of a sickly person, but recovered its colour when transferred to a healthy hand. Another fancy was that its hue varied with the hour of the day, so that to the careful observer it could serve the purpose of a dial. In Germany it is believed that, when presented as a love-gift, its colour will remain unaltered so long as the giver is faithful, but will grow pale as his affection fades. The " fossil ivory mottled with dark blue and white," of

¹⁰ The true Chrysoprase is sometimes found in antique Egyptian jewellery, set alternately with bits of Lapis-lazuli.

Theophrastus, was our Occidental Turquoise: in which the osseous structure is plainly discernible to the microscope, and which also is much softer than the true Oriental Turquoise, or, as jewellers name it, that "de la vieille roche," which strikes fire with steel, while the Occidental can be scratched by steel. According to Hill, the blue which mottles the white surface of the latter can by means of heat be made to diffuse itself regularly throughout the whole, thus greatly improving its appearance and enabling it to be passed off for the precious variety. It is in this softer material that all the truly antique camei that I have seen have been executed, by far the best of which is a laureated head of Augustus among the Pulsky gems, and a Gorgon's head now in the Fould Collection. It is hardly necessary to add that the original azure of these gems, due to the oxide of copper, has been converted into a dull green by the action of the earth.

MAGNET.

On Magnet, a black compact and hard iron-ore,¹ I have seen rude intagli of the Lower Empire, especially of Gnostic subjects: the mysterious quality of the stone naturally pointing it out as a fit material for amulets. The Magnet was thought by the Romans capable of imparting knowledge in a case where ignorance is bliss, as appears from *Orpheus*, 312:

"If e'er thou wish thy spouse's truth to prove,
If pure she's kept her from adulterous love,
Within thy bed unseen this stone bestow,
Muttering a soothing spell in whispers low:
Though wrapped in slumber sound, if pure and chaste,
She'll seek to fold thee in her fond embrace;
But if polluted by adultery found,
Hurled from the couch, she lies upon the ground."

¹ This is the usual material of the cylinders of the purely Babylonian class.

Dinocrates, the architect of the city of Alexandria, had commenced the building of a temple in honour of Arsinoë, wife of Ptolemy Philadelphus, intended to be constructed entirely of loadstone, with the idea that an iron statue of the queen would, by the counterbalancing attraction of every part of the structure, remain suspended in mid-air; but the plan was never carried out in consequence of the death of Ptolemy. Here we have the origin of the mediæval fiction of the iron coffin of Mahomet. Claudian, *Idyl.* v., thus describes a temple containing a statue formed out of loadstone, as actually existing in his own time, the end of the 4th century:—

“ A stone there is which people magnet style,
 Dull, dark of colour, in appearance vile ;
 Unlike to such as deck the combed-back hair
 Of princes, or the necks of maidens fair ;
 Or such as on the golden buckles shine,
 Which by their clasp the imperial belt confine.
 Yet such its wondrous force it far outweighs
 All beauteous ornaments, all jewels’ blaze,
 Or all those treasures which on Eastern shores
 Th’ Indian midst groves of coral red explores.
 From iron draws its force,² from iron lives ;
 ’T is this its food, ’t is this its banquet gives ;
 And hence renews its strength ; borne through its veins
 The rugged aliment its life maintains.
 Of this deprived, its frame exhausted lies,
 Fierce hunger gnaws, and thirst consuming dries.
 With gilded ceilings decked a temple shines,
 And two immortals grace two common shrines ;
 Mars scourging cities with his blood-stained spear,
 And Venus, solace sweet of human care.

² The Roman antiquaries at present, whenever they meet with a loadstone intaglio, always preserve it in a box of iron filings in order “ to keep up its strength.”

Different their forms—in iron Mars commands ;
Sculptured in magnet lovely Venus stands.
Their nuptials high with solemn rites to grace
The priest prepares, the guardian of the place :
The blazing flambeaux lead the dancing quire,
High o'er the gates the myrtle-boughs aspire ;
With heaped-up roses swells the marriage bed,
The bridal chamber is with purple spread.
Behold a marvel ! instant to her arms
Her eager husband Cythereia charms,
And, ever mindful of her ancient fires,
With amorous breath his martial breast inspires.
Lifts the loved weight, close round his helmet twines
Her loving arms, and fond embraces joins.
Drawn by the mystic influence from afar,
Flies to the wedded gem the god of war :
The magnet weds the steel, the secret rites
Nature attends, and th' heavenly pair unites.
Say from what source to differing metals came
This hid affinity, this wondrous flame ?
What mystic concord bends their stubborn minds ?
The panting stone love's melting influence finds,
Seeks the loved metal her deep wound to heal,
Whilst love's mild pleasures tame the cruel steel."

TOURMALINE.

The Tourmaline is a dark olive-green stone, often nearly black and almost opaque. But Brazil, the land of coloured gems, produces also a blue and a bright-green variety, transparent and ornamental ring-stones. A red kind, or Rubellite, comes from India ; the specimen in the British Museum is of extraordinary size, and valued at 1000*l*. This stone is the most electric of all gems ; one end of the crystal attracts, the other repels, light objects, when heated by friction. Some have supposed the Rubellite to be the *Lychnis* of the Ro-

mans ; but its inferior hardness, only equal to that of quartz, controverts this theory. On the olive-coloured sort I have met with intagli, but all modern ; in fact, the Tourmaline was not known in Europe before the last century.

AVENTURINE.

The Sandaresus, an Arabian stone, classed by Pliny among the Carbunculi, seems to have been our Aventurine, for he describes it as full of golden stars shining through a transparent substance, not from the surface, but from within the body of the stone. The true Aventurine, or Goldie-stone, is a brownish semi-transparent quartz, full of specks of yellow mica. It is very hard, and takes a high polish : in the last century it was of considerable value, but now is altogether neglected. The common sort, so often seen in Italian ornaments, is a composition made by stirring brass filings into melted glass, and is said to have been discovered by accident, “*per aventura*,” whence the name Aventurine.



Hercules. Obsidian.

OBSIDIAN.

Pliny describes the Obsidian as a stone found in Æthiopia by a certain Obsidius, who gave it his own name. It was very black, and sometimes transparent. Used as slabs to

line walls of rooms, it acted as a dark mirror reflecting shadows instead of the objects themselves. "Many persons make ring-stones out of it, and we have seen complete figures of Augustus made of it." That prince was charmed with the deep colour (*crassitudine*) of the stone, and himself dedicated four elephants of Obsidian in the Temple of Concord. An Obsidian statue of Menelaus, found among the property of a former prefect of Egypt, was restored by order of Tiberius to the Heliopolitans, its original destination—a fact which proves the ancient use of the stone itself, now so largely imitated in glass. I have met with a few intagli in this stone, which greatly resembles black glass, and is semi-transparent in the thinnest parts; indeed it can only be distinguished from black glass by its superior hardness, easily scratching the latter substance. I know of a splendid head of Hercules crowned with poplar-leaves in Obsidian, a work apparently of the Augustan age: a gem generally considered by its former owners as nothing better than a modern dark paste.³ By a curious coincidence this stone was employed by the old Peruvians also for mirrors, as well as for cutting instruments, specimens of which are often found in their tombs.

PORPHYRY — BASALT. •

The first of these extremely hard stones is easily recognised by its deep red colour, thickly dotted with small white spots.⁴ It was chiefly employed by the Romans for columns and bas-reliefs, and first introduced by Vitrasius Pollio, who brought from Egypt statues of Claudius on this stone: though

³ Among the Praun gems I observed a gryllus of the common type, the cock and masks, cut in a very bold deep manner on this stone; and a rare addition, with a Gnostic device, of apparently coeval work, upon the reverse.

⁴ Hence called *Leptopsephos*.

it did not *take*, at least in Pliny's time, as he adds that no one followed Pollio's example. However, as taste declined, it became under the Lower Empire a favourite building material, magnificent relics of which are still preserved. It was also, probably when still a novelty, used for intagli, on selected pieces of peculiar bright colour, some of which I have noticed of very good work, and of an early imperial date. It was also employed for this purpose by the Italian artists of the Revival: the Florence Gallery possesses a fine head of Leo X., engraved on a piece of large size, and set in iron, to be used as an official seal.

On Basalt, a dark, iron-coloured stone of a very fine grain, looking when worked more like metal than a stone, intagli also occur, but usually rude in style, and of the Gnostic class. This stone was largely used for statues, both by the Egyptians and the Romans of the Empire.

OPALS.

Opals came to the Romans from India; at present the best are brought from Hungary. The largest known to the ancients did not exceed the size of a hazel-nut; this was the famous Opal of Nonius, valued at 20,000*l.* of our money; rather than yield which to M. Antony, he preferred going into exile. The Turks at present esteem the stone almost as highly, and readily give 1000*l.* for a fine and perfect one of the above-named size. Pliny grows quite poetical in his description of the Opal:—"Made up of the glories of the most precious gems, to describe them is a matter of inexpressible difficulty. For there is amongst them the gentler fire of the Ruby, there is the rich purple of the Amethyst, there is the sea-green of the Emerald, and all shining together in an indescribable union. Others by an excessive heightening

of their hues equal all the colours of the painter, others the flame of burning brimstone, or of a fire quickened by oil." Yet the mines of Hungary now supply Opals infinitely larger than those known to Pliny, the finest of which are preserved among the Austrian crown-jewels. Although so high a value is set upon this beautiful gem, yet it is but a precarious possession, being extremely brittle, sometimes cracking when the hand is held near the fire in cold weather, and losing its beauty completely by wear, after dust and grease have closed up the innumerable cracks of its flinty substance, which produce the brilliant play of colours constituting its only charm. It is said that by roasting an Opal thus spoilt, and so expelling the grease from its pores, its former lustre can be restored; a process which seems to me extremely hazardous. The Opal was counterfeited by the Indians in glass more successfully than any other gem (*similitudine indiscreta*). The Romans named it the *Pæderos*, or Cupid, as being the perfection of beauty; for the same reason it was called, in the Latin and German of the Middle Ages, the *Orphanus* and the *Waise*.

Some rude *intagli*, but apparently antique, sometimes are found upon bad and opaque Opals.⁵ Though Pliny calls India the sole mother of the Opal, yet he can only mean of the best variety, as he afterwards mentions some found in Egypt, Pontus, Galatia, Thasos, and Cyprus: these had less lustre than the Indian, their colours being a mixture of sky-blue and purple, "*ex aere et purpura*," which wanted the emerald green of the Indian variety.

⁵ But there is a fine Opal in the Praun Collection, engraved with heads of Jupiter, Apollo, and Diana, surrounded by nine stars, of mediocre Roman work, and pronounced antique by the best judges—a truly unique gem.

DIAMOND.

The Diamond, contrary to the usual custom, must, in pursuance of my plan, occupy the last place in the list of gems, as furnishing no engravings of either ancient or modern artists, and merely supplying an instrument for the execution of their work.

Under the Romans it was a well-known gem, and then, as now, "the most precious of all possessions." Before the age of Pliny it had been seen only on the hands of kings, and of but a few among them ; but the spread of commerce under the Cæsars had by that time made the gem much more common. Six varieties were then known, of which the Indian, "sometimes as large as a hazel-nut kernel," and the Arabian were clearly real diamonds, as is shown by their peculiar form, described by Pliny as that of two whipping-tops united at their broadest ends. Their silvery or steely lustre is also noticed, a striking peculiarity of the stone in its natural state. The Macedonian found in the gold-mines of Philippi was no larger than a cucumber-seed. The Cyprian, of a bluish tinge, "*vergens in æreum colorem*," and the Siderites, of a steel colour and very heavy, were doubtless Sapphires, for they could be drilled by means of another Diamond. Pliny goes on to repeat the jeweller's fiction as to the infrangibility of the Diamond, a thing still believed in by most people, who cannot separate the ideas of hardness and of resistance to violence, and who do not choose to try so costly an experiment on any Diamond in their own possession. But in reality, from the fact of this gem being composed of thin layers deposited over each other parallel to the original faces of the crystal, it can easily be split by a small blow in the direction of these laminae. This property may be exemplified by the following story. The London jeweller

intrusted with the re-cutting of the Koh-i-noor⁶ was displaying his finished work to a wealthy patron, who accidentally let the slippery and weighty gem slip through his fingers and fall on the ground. The jeweller was on the point of fainting with alarm, and, on recovering himself, reduced the other to the same state by informing him, that, had the stone struck the floor at a particular angle, it would infallibly have split in two, and been irreparably ruined. A few particulars about this famous Diamond will not be out of place here. Tavernier saw it two centuries ago in the treasury of the Great Mogul, not many years after its discovery. Its weight in the rough, of above 800 carats (according to report), had been reduced to 284 by the bungling Italian lapidary who had

⁶ The Hindoos have a superstition that this Diamond brings certain ruin upon the person or the dynasty possessing it. It was turned up by a peasant when ploughing in a field forty miles distant from Golconda, and was in its rough state fully as large as a hen's egg. Its first owner, in the 17th century, was a Hindoo Rajah, from whom it was wrested by Meer Jomlah, who presented it to Aurungzebe. Immediately after this fatal gift the Mogul race degenerated, each of his successors being more vicious and incapable than his father, until, in 1739, the last, Mohammed Shah, was deprived of the unlucky jewel in the sack of Delhi by Nadir Shah. The conqueror was assassinated by his generals on his return to Persia, and the Diamond fell into the hands of one of the conspirators, Ahmed Shah Doorannee, the founder of the Affghan monarchy, the history of which is a perpetual series of crimes and massacres. From the last of this line, Shah Soojah, it was ex-

torted by Runjeet Singh (by the means of starving him into a surrender of the treasure), when he had fled to the Khalsa Court for refuge from Dost Mohammed. Runjeet, in order to break the spell and avert the fatal influence from his race, bequeathed at his death the stone to the Temple of Juggernaut; but his successors would not relinquish the baleful treasure, which in a very few years worked its destined effect—the ruin of his family and the subjugation of the Punjaub to the English. Lord Dalhousie presented it to Queen Victoria in 1849; within ten years the usual consequences of its possession were manifested in the Sepoy revolt, and the all but total loss of India to the British crown, in which beams its malignant lustre, lighting up a very inauspicious future for that region, fated apparently ever to be disturbed by the measures of ignorant zealots at home and the plots of discontented and overpowerful allies in the country itself.

brought it to the ugly and unskilful form in which it appeared when brought to this country. This was a rude hemisphere facettèd all over, apparently intended for the *rose* shape. The re-cutting in London was effected by the means of a small steam-engine, under the superintendence of two artists brought expressly from Holland, where alone the business is kept up. This operation cost 8000*l.*, and has brought the stone to the form of a perfect brilliant, with a wonderful augmentation of its beauty and lustre, though with a reduction of the weight to 180 carats. Even now it remains one of the largest Diamonds in Europe—Halphen's Star of the South weighing 244 carats; the great Russian 193; the Pitt or Regent of France 136; the Austrian, a yellow stone, 139; and Hope's blue Diamond, the most beautiful, though least valuable of all, 177.⁷ The art of cutting and polishing this gem was only discovered in the fifteenth century by Louis de Berghem, and the first ever cut by him was a large one belonging to Charles the Bold, and weighing 55 carats. It is now known as the Sancy diamond, which, having been found on his corpse on the field of Granson, was sold for a few francs, and, after passing through innumerable vicissitudes (having once been swallowed by a faithful servant when beset by robbers, and afterwards extracted from his dead body by his master), now reposes amongst the French regalia. Vossius says, the largest Diamond known in his time, the end of the sixteenth century, was that bought by Philip II. of Carlo Affetati, of Antwerp, in 1559, for 80,000 crowns. Its weight was but 47½ carats. It was then a prevalent opinion that the stone lost its lustre by too much warmth, whence persons

⁷ The Rajah of Mattan in Borneo is indeed reported to possess a Diamond of the incredible weight of 367 carats, but no particulars are given of its water, perfection, &c.

It may, after all, like the famous Portuguese stone, prove only a white Topaz when examined by an European connoisseur.

on going to bed used to place their diamond rings on a marble-table, or in a glass of water.

Hence they were always worn by the Romans in their native form, a fine instance of which is afforded by the clasp of the mantle of Charlemagne set with four large Diamonds, the legacy doubtless of his Imperial predecessors. The Herz Collection also possessed a well-formed octahedral Diamond of about one carat, set open in a massy gold ring of indubitable antiquity. The largest cabinets of Europe do not, to my knowledge, boast any such specimens, yet I have met with another example in the collection of an acquaintance, where a small pyramidal Diamond, showing distinctly its primitive form and silvery lustre, was set in its original ring of thick gold-wire, to all appearance a work of Roman times. Such was the

“Adamas notissimus et Berenices
In digito factus pretiosior”

that graced the hand of the imperious lady of the days of Juvenal; the stone being prized, not for its beauty, but for its rarity and extraordinary virtues as an amulet.

It is said that the Austrian Diamond was originally bought for a mere trifle at a curiosity-shop at Florence, being considered merely a yellow crystal. Brazil furnishes a vast supply of these yellow stones, the most unpleasing of all the tints the Diamond assumes, for to my taste the pink and blue varieties are much superior in beauty to the colourless.

The ancient Indian mines of Golconda and Cooloun (where at the time of Tavernier's visit more than 60,000 men, women, and children were employed in the various operations of the search), in the Madras Presidency, have long since been exhausted; the only source of the supply at present is Brazil, and even there the tract containing the gravel (cas-calhao) in which they are found is nearly worked out. But

I have little doubt that in a short time the market will be flooded with an importation of this gem from Australia, even greater than that which took place on the first discovery of the Brazilian mines. As in that region they were accidentally discovered in the search for gold, so in Australia a few have already made their appearance under similar circumstances; one of which, as well as a Sapphire from the same locality, has been deposited in the Museum of Geology, Jermyn-street. And this important discovery will doubtless take place when the gravel of the Australian diggings comes to be turned over by persons having eyes for other things besides gold flakes and nuggets.⁸ The observation made of old by Pliny, that the diamond always accompanies gold, has been fully borne out by the experience of succeeding ages,⁹ for in most deposits of alluvial gold have they been found in greater or less abundance, even in Wicklow and in Cornwall.

This stone is highly electric, attracting light substances when heated by friction, and, as we have already noticed, has the peculiarity of becoming phosphorescent in the dark after long exposure to the rays of the sun. The ancients also ascribed magnetic powers to the Diamond in even a greater degree than to the loadstone, so much so that they believed the latter was totally deprived of this quality in the presence of the Diamond; but this notion is quite ungrounded. Their sole idea of magnetism was the property of attraction; therefore, seeing that the Diamond possessed this for light objects, the step to ascribing to it a superiority in this as in all other respects over the loadstone was an easy one for their lively imaginations.

⁸ A letter has appeared this summer (1859) from a miner, speaking of the vast quantity of small Rubies found in washing the "dirt," some hundreds of which were in his own

possession.

⁹ In the British Museum, among the native Diamonds, is "an octahedral Diamond attached to alluvial gold."

PASTES.

Pastes are imitations of precious stones and of engraved gems, both camei and intagli, transparent and opaque, in coloured glass, and are manufactured in the following manner: A small iron case of the required size is filled with fine tripoli mixed with pipeclay, and moistened, on the surface of which an impression is made of the gem to be copied. This matrix is next carefully dried, and a piece of glass of the proper colour is placed upon it. If a stone composed of various strata is to be imitated, the proper number of layers of coloured glass are piled upon each other. The whole is then carefully placed in a furnace and watched until the glass begins to melt, when it is closely pressed down upon the mould by means of a flat iron, coated with French chalk in order to prevent the glass from adhering to it. It is then taken out of the furnace and cooled gradually, when the glass will be found to have received an exact hollow impression of the design first made in relief upon the tripoli. If it is required to imitate a gem full of flaws, as a Carbuncle or Emerald, the effect is produced by throwing the paste, when still hot, into cold water. This was, doubtless, the method followed by the ancients, except that they used a coarser material for their moulds, perhaps those terracotta impressions of intagli hereafter to be noticed, for antique pastes have a much rougher surface than the modern, and are full of air-bubbles. A curious fact, however, concerning them is that they are much harder than our common window-glass, and will scratch it in the same way as a splinter of flint does, whereas all modern coloured glass is softer than the transparent kind. This was due to the composition of the substance; for at present the German glass, which is made with soda, is greatly superior in hardness to the English, into which a large quantity of lead enters. Besides this superior hard-

ness, other supposed marks of an antique paste are the beautiful iridescence with which its surface is often coated, owing to the oxidation of the glass by the action of the acids of the earth in which it has lain, as well as the bubbly and porous texture, not merely of the whole exterior, but also of the entire substance itself. This last peculiarity distinguishes the antique from the modern glass-pastes, which, when they imitate the transparent gems, are usually clear and homogeneous throughout, being, in fact, made out of pieces of what glass-painters call "pot-metal," or stained glass of one colour selected for the purpose; and these, from the greater fusibility of the material, usually show an even interior within the intaglio with difficulty to be detected from the work on a real gem. But it may be remarked that this superior hardness may be found in pastes of the modern fabrique, if manufactured out of fragments of ancient glass, whilst the porousness and roughness of the cast will depend upon the coarseness of the sand or clay used in forming the matrix, and also upon the regulation of the cooling of the paste after the fragment of glass has been fused down upon the impression. Thus, at present, false Carbuncles and Emeralds are made to show all the flaws and "feathers" of the true stones by cooling them suddenly when removed from the furnace. As for the iridescence so much valued by collectors, I strongly suspect that it is often produced by artificial means, by the use of acids; for bits of window-glass, after a few years' exposure in a garden-bed, will be found with a surface as much corroded and as iridescent as that of the finest antique pastes.

We have already remarked, under "Emerald," the high perfection to which the Romans had carried the art of making false gems, and the difficulty of distinguishing such from the true is frequently alluded to by Pliny. He also

enumerates the following kinds of coloured glass as employed for drinking-vessels:—"Glass like Obsidian is made for dishes ('escaria vasa'), and an entirely red, opaque sort, called Hæmatinon. An opaque white is also made, and imitations of Agates, Sapphires, and Lapis-lazuli; and all other colours." Specimens of all these kinds are continually met with among the fragments of vessels found in company with Roman remains; more especially those imitations of the Sapphire here mentioned, a semi-transparent glass of the richest blue.¹⁰ Probably the finest paste in existence is an exact imitation of Lapis-lazuli, now preserved amongst the antique glass in the British Museum, on which is a three-quarter figure, in half-relief, of Bonus Eventus, a naked youth holding a cornucopia. The slab is of considerable size, and has been worked all over with the wheel, or some similar instrument, after the manner of a gem cameo, and not simply cast, as is usually the case with antique pastes. Hadrian sent his friend Servian as a present from Alexandria (Vopiscus, Vita Saturnini) two cups of opalescent glass ("calices allassontes versicolores") given him by the priest of the Temple of Serapis, probably as a choice specimen of a national manufacture for which that city had been long celebrated.¹ Pliny also speaks of draughtmen made of

¹⁰ These fragments are collected by the Roman lapidaries, cut and polished and set in bracelets and brooches, where they show like Agates of the most novel and beautiful varieties, variegated with brilliant colours, arranged in wavy patterns. Blue with white stripes passing through its substance, and green similarly marked with red, were favourites of the antique glass-workers, judging from the frequency of such fragments.

¹ The Egyptian glass-workers also produced small mosaics of the most minute and delicate finish, and sufficiently small to be worn in rings, and as pendants to necklaces, in the following ingenious manner. A number of fine glass rods, of the colours required, were arranged together in a bundle, in such a way that their ends represented the outline and shades of the object to be depicted, as a bird or a flower, exactly as is practised at present in

coloured glass of several varying tints, "*pluribus modis versicolores*."

The art of making paste intagli was rediscovered by the Italians of the Renaissance, and afterwards brought to perfection by the Regent Orleans, under whose patronage the manufacture attained the greatest celebrity, and far surpassed any productions of the ancients in the same line.

Clarac gives the following notice of the origin of the Orleans pastes:—"Having engaged (1691-1715) the services of the celebrated chemist Homberg, and assisting him with his own hands in his operations (in a laboratory established in the Palais Royal), the Regent made him reproduce in glass-pastes all the gems that he himself had collected, and also a large number selected from the royal cabinet. It is said that he manufactured six complete sets of these pastes, one of which Clarac himself possessed, the bequest of M. Gosselin of the Académie. It had been in his hands for many years, and was always regarded as one of the original six sets coming from the Regent's own laboratory. It had, however,

the manufacture of Tunbridge-ware. This bundle was next enclosed in a coating of glass of a single colour, usually an opaque blue: then the whole mass, being fused together, sufficiently to unite all the rods into one compact body, was drawn out to the proper diameter. Thus the rods all became equally attenuated without losing their relative positions, and the surrounding case of glass, when the whole mass was cut through at certain intervals, formed the ground of a miniature mosaic, apparently composed of the minutest tessaræ, put together with inconceivable dexterity and niceness of touch. Each slice of the finished mass necessarily produced the same pattern, without the slightest varia-

tion. The most beautiful specimen of this elegant art in existence is to be seen amongst the gems of the British Museum. It is a square of one inch, the ground a brilliant blue, enclosing a kneeling figure of a winged goddess, Sate, in which the union of the pieces defies the closest scrutiny, and gives the effect of a miniature painted by the finest pencil, and in the most brilliant colours, which are brought out by the high polish given to the surface of the slab. The back, left unpolished, clearly shows the process of the manufacture. It formerly belonged to the Duchess of Devonshire, and was deemed one of the choicest treasures of her collection.

been increased by the addition of several other pastes, probably made by Clachant and Mdle. Falloix, who had been instructed by Homberg in this art, and became dealers in its productions. These pastes of the Regent are of very fine glass, or of enamel, and exactly reproduce the colours of the original gems. It is plain that they were produced with the utmost care; the material is very dense and free from flaws and air-bubbles; the intagli in them are clean, polished, and lustrous in the interior, a result extremely difficult to obtain. When held against the light, those which are transparent produce, by the richness of their tints, precisely the effects of the real stones. Some of them, however, particularly the Sardonyx, have been better imitated subsequently as far as the tone of the colour is concerned; but nevertheless, in spite of the recent advances in the art of glass-making, and in enamels, as well as in chemistry, it is very much to be doubted if finer pastes than these of the Regent could be produced in our times."

The new process was soon spread throughout Europe; and when Goethe visited Rome, in the last quarter of the past century, the making these glass pastes was a favourite occupation of the dilettanti residing there. At present the Romans display the very greatest skill in this art: I have seen some of their pastes, especially of the opaque kind, such as onyxes, that could not be distinguished from the real stone except by the file. To baffle this mode of detection, the dealers use the ingenious contrivance of backing the paste with a slice of real stone of the same colour; this being set in a ring, the junction is concealed, and when tested by the file enables the whole to pass for the real gem adorned with a valuable engraving.² The same method is adopted for

² Clarac mentions his having been shown a paste from an intaglio by Marchant, and still retaining traces of his signature, which, having been

forging all the precious coloured stones, the Ruby, Emerald, and Sapphire : a paste of proper colour is backed by a piece of rock crystal facettèd in order to give the requisite brilliancy, and then sold to the unwary as a gem of the first class ; nor is the deception detected until the wear of some time begins to act upon the soft surface of the upper vitreous layer. Pliny mentions a somewhat similar device of the Roman lapidaries in the case of the *Jaspis Terebinthizusa*, the three several strata being made up of three separate stones of the best colours respectively, cemented together with Venice turpentine, which is still used for the purpose on account of its perfect transparency.

I have seen tolerable antique pastes set in old bronze rings, and evidently genuine, but hardly ever in rings of the precious metals ; as might have been expected, for such base imitations were only worn by people of the lowest class or slaves. Pliny mentions expressly "the glass gems of the rings of the populace," which, when ground up with pipeclay, produced the paint called "annulare." A paste cameo of a sphinx seated, an imitation of the *Sardonyx* and very well executed, set in a massy antique gold ring, once came under my notice ; but without doubt this cameo had been passed off upon the ancient owner as the real gem of which it was so admirable a counterfeit. This antique fraud reminds one of the jocular punishment inflicted by Gallienus upon the jeweller who had taken in the Empress Salonina with some false gems. She demanded that an example should be made of him, and the emperor ordered that he should be exposed to the wild beasts in the amphitheatre. The poor wretch was thrown naked into the arena, the door

manufactured into an antique Sard	had been sold at an enormous price
in this manner, and vouched to have	to a Neapolitan duke, an enthusiastic
been recently dug up at Otranto,	amateur of gems.

of the den thrown open, when out strutted a cock, and the culprit got off with the fright, Gallienus saying that it was just that he who had cheated others should himself be cheated. Antique glass rings also occur, with the shank of a twisted pattern, and in colour imitating the Agate, the head bearing a comic mask, in relief, in opaque paste of green or some different colour from the ring, copies, no doubt, of the cameo masks in Emerald, and Plasma, and Amethyst so often met with in collections. I once bought one at Rome, the very fac-simile of that given by Caylus (II. lxxxix.). These, from the fragility of the material, are naturally of extreme rarity when perfect.

I shall now hazard a remark that will greatly shock the faith of most collectors, to this effect,—that, of the pastes sold as antique in such abundance, hardly one in a hundred is genuine. In the handfuls of stones brought to the dealers at Rome by the peasants, just as they are found in turning over the ground of their vineyards and gardens in the neighbourhood, pastes never occur without some portion of the old bronze mounting still adhering to them: the *loose* intagli are always cut on stones, even though most of them are engraved in the rudest manner, and evidently for the wear of the poorest classes. Besides, as these valueless glass gems were never worn by people who could afford rings of gold or silver, there was no probability that they were taken out of the settings and thrown away when the ring was melted down for the sake of the metal, as was the case with the real gems in the times of barbarism. Again, every one who has ever seen a paste in its original bronze ring will be convinced of the all but impossibility of its being extracted from the metal without being broken into fragments. Had pastes been as abundant in antiquity as they are in collections, they would form the majority of the intagli turned up

in the ground about Rome, whereas the direct contrary is the case; whence we may fairly conclude that any paste appearing never to have had a setting may be looked upon with the utmost suspicion. One of the best antique pastes I have ever met with was one found near Rome in the spring of 1850: the intaglio representing the town of Troy upon an excellent imitation of a black and white Agate, and still set in its massy bronze ring, which was almost entire. Many pastes are produced as antiques which still retain the projecting edges of the superfluous piece of glass, forming, as it were, a thin frame around the back, which clearly shows that they have never been set at all or intended for setting: all such may be put down, without hesitation, to the account of the fabrique of the amateurs of the last century.

Some early pastes of the Renaissance are occasionally to be met with in settings of the time, which fixes the date of their manufacture: they are very rude and cast out of "pot-metal," to imitate the Sapphire. But the pastes of the flourishing period of the same school are often very minute and carefully finished productions, containing elaborate groups, and finished up by means of the wheel: and such have often passed for true antique intagli. One in particular, a group on an imitation of Garnet in an enamelled gold ring of the period, was quite a masterpiece of imitative art.

The abundance of pastes, all styled antique, but due in great part to the ateliers of the dilettanti of the last century, that now fill the English collections, is perfectly amazing, and furnishes another and a most amusing proof of Ovid's remark, that to believe

"quod volumus credula turba sumus."

Many amateurs possess several hundreds of them at once, and must believe, therefore, that the ancient glass-workers

passed all their days in making these fac-similes of gems for the mere purpose of sowing them broadcast in the earth for the delectation of future ages.

At some of the sales of collections of gems in London I have seen cards full of pastes sold at the rate of two shillings and sixpence the dozen pieces, many being as good and as genuine as such generally are. It was therefore an amusing proof of the influence of a name in this branch of art, as in every other, to see at the sale of the Herz Collection the ignorant dealers in antiquities bidding high prices, often some pounds per lot, for the worthless pastes forming so large a portion of its numbers, and which the astute old diamond-merchant, the first possessor, had purchased in former years at the rate of a shilling for every pound realised at the sale.

I have lately examined a large quantity, perhaps above 200 lumps, of coloured antique glass, of the size and shape of the various kinds of gooseberries, some much larger than others, but all cast as much as possible to the same form, and evidently intended to receive an impression from the proper matrix after a semi-fusion in the manner above described. Some of these lumps were of very fine colours, and a few were observable composed of two different layers, designed to imitate the Sardonyx. Although many were of a pure kind of pot-metal, the greatest part exhibited that porous, bubbly texture so generally found in antique pastes. This entire stock, including a few finished works (one a remarkably fine cameo bust of Jupiter in green glass) as well as a few rude intagli in Sardis and Garnets, was stated to have been discovered in one deposit near Naples. Unfortunately no dependence whatever can be placed upon these accounts as to the discovery of antique gems imported from Italy, the dealers having always a well-authenticated and

circumstantial story at their fingers' ends to give a false value to whatever they may have to dispose of: these embryo pastes, therefore, may either have been collected singly, if antique, or else recently made to order for the antiquity market by some glass-worker; but supposing this statement as to the *provenance* of the hoard to be essentially true, we should have here a very interesting example of the first processes of this curious manufacture. Many years ago a specimen, beyond all suspicion of forgery, of a globule of paste prepared for the matrix came under my notice, though at the time its object was unexplained; a lenticular piece of dark-blue glass, rough as when cast, and looking like a dark flat pebble, was found, together with a large Carnelian, cut ready for setting but unengraved, and a silver ring set with a rude intaglio of Mars in red Jasper, all deposited beneath a large stone in the ruins of a Roman building in the Broadway, Caerleon.



Seals of Sennacherib and Nabucc II.

IMPRESSIONS OF INTAGLI IN TERRA-COTTA.

Impressions of intagli on small pieces of burnt clay of the same form as the gems are not unfrequent in collections. Those discovered so abundantly amongst Assyrian remains, bearing the impress of the royal seal (and in one most interesting case given by Layard, that of the cotemporary king of

Egypt), were deposited in the places whence they have been exhumed (ancient archive-offices) when attached by a string to documents, as is clearly proved by certain papyri still extant with similar clay seals appended. Others of later date, I have little doubt, served as moulds for making the pastes described above, and the coarseness of the material will account for that roughness of surface which so distinguishes the antique from the modern productions. This view is confirmed by the fact that the moulds used for the issue of the extensive base silver forgeries of the Lower Empire are also made of the same material and in a very similar manner; these coin-moulds have been found abundantly in Somersetshire, Yorkshire, and in France at Arles and Lyons.³ Many of the clay impressions of intagli come from Syria, a country always famed in ancient times for its glass manufactures. Some, however, have taken these stamped pieces of terra-cotta for “*tesseræ hospitales*,” or credentials carried by travellers as means of introduction from one friend to another at a distant city. In the ‘*Pseudolus*’ of Plautus the Macedonian soldier leaves an impression of his signet, his own portrait, in the hands of the slave-dealer, with a part of the purchase-money of the girl whom he has bargained for, and subsequently sends his servant Harpax with the remainder of the sum, who, to authenticate his mission, brings with him another impression of the same signet. This Plautus styles *Symbolum*; and the various counters still preserved so abundantly in lead, ivory, and clay, are supposed to have been intended for similar purposes. The famous courtesan Glycera, amongst her other witticisms recorded by Athenæus, on receiving the clay impression of her lover’s

³ Hence it is certainly allowable to conclude that moulds of the same material would be employed for the analogous process of manufacturing the cheap paste gems so much in demand at the same period.

signet, a pre-arranged signal that she was to visit him, replies to the messenger, "Tell him I cannot come, for it is muddy (or mud)," the Greek word admitting both meanings; hence the joke. That too enthusiastic collector, Verres, has it laid to his charge by Cicero as a most heinous crime, that, having been greatly pleased with the seal on a letter, he sent for the signet itself, and never returned it to the owner, a proceeding which would be reprobated and imitated by many antiquarians of the present day.

MURRHINA.

To treat of gems and to omit the Murrhine would be like writing a history of this century which should contain no mention of Napoleon, so fierce a war has been waged by theoretical archæologists with one another about the real nature of this substance. Some have absurdly supposed it to be Chinese porcelain, basing this theory entirely upon the line of Propertius—

"Murrheaque in Parthis pocula cocta focis."

"And murrhine goblets baked in Parthian fires."

A mode of expression which is nothing more than one of his favourite poetical conceits for conveying the same idea as Pliny, when he says "Some consider it to be a liquid substance solidified by subterranean heat." This, by the way, is a strange anticipation of the modern theory ascribing the production of Agates and Jaspers to igneous action. One consideration alone suffices to show the utter absurdity of the porcelain hypothesis, as though Pliny, a man so skilled in the arts, could ever have mistaken the Chinese painting of figures, animals, or flowers, on their porcelain ware, for natural spots and colours on a real stone. Besides, the material itself was

brought to Rome in the rough, and there wrought up into dishes and flat bowls, for which purpose alone it was suited, in consequence of the want of thickness of the strata. Pieces however were obtained of considerable superficial extent; for, amongst the valuable objects displayed at Pompey's triumph, was a draught-board four feet long by three wide, formed out of only two slabs. This was the first occasion on which the stone was introduced into Rome, and Pompey dedicated to Jupiter Capitolinus the unworked pieces (*lapides*) and the vases borne in procession during the triumph.⁴

The dimensions of a slab were never beyond those required for a dish (*abaci escarii*); and the *trulla*, especially particularised as usually made of this stone, was precisely of the form and size of a modern breakfast-saucer. These Murrhine vessels were, in spite of their high price, accumulated in large numbers by the wealthy Romans; those belonging to a single senator, and which, on the owner's death, Nero seized for himself, were sufficient, when set out as a spectacle to the public, to fill a theatre in the Palace-gardens of considerable capacity. They are mentioned by various ancient authors as being in use down to the close of the empire; and legal writers especially distinguish Murrhina from vessels of glass or of the precious metals. Heliogabalus is recorded to have employed Murrhine vases, as well as those of Onyx, for the basest purposes,⁵ which seems to have been regarded as the very extreme of licentious extravagance. As the material was indestructible, we should expect to find these

⁴ This was his third triumph to celebrate his victories over the Cilian pirates, Pontus, Armenia, Cappadocia, Paphlagonia, Syria, Judaea,

Albania, Iberia, Crete, the Basterni, and the kings Mithridates and Tigranes.

⁵ "In murrhinis et onychinis mixxit."—
Treb. Pollio.

vases, either whole or in fragments, amongst ancient remains, on the axiom that whatever cannot be annihilated must exist in some place or another, and the only vases we *do* meet with under circumstances fulfilling all the requirements of the case, are of Agate, fragments of which I have seen at Rome belonging to bowls of extraordinary diameter, fully accounting for the vast sums paid by the luxurious for the rarities amongst this class. For instance, Petronius possessed a *trulla* valued at 3000 talents, which, immediately before killing himself, he broke to pieces, in order to disappoint the expectations of Nero, who himself is said to have afterwards paid the same sum for a smaller vase. These fragments even now are found so abundantly at Rome as to prove the extensive use of these Agate vessels in ancient times: they are now cut up into brooch-stones, if not large enough to be preserved as curiosities for their own sake. Perfect vessels, as may be supposed, are of the greatest rarity.*

Pliny describes the Murrhine as a stone covered with spots varying from white to *purple*, which last colour at that time included all shades from dark-red to indigo. The substance also exhibited a mixture of tints, the purple passing into a flame-colour, and the milky shades turning to a red. Such changes I have myself witnessed in an Agate *trulla* belonging to an acquaintance, the colours of which are a nearly transparent white, milky in parts, and a reddish-brown, going through many curious changes of hue as the light is allowed to pass through the vessel at different angles. Agates present all possible varieties of colour: they occur with shades of Sapphire, blue mixed with the white,

* The splendid Agate vase of the Museo Borbonico was purchased for the sum of 10,000 ducati, or 1500*l*.

with well-defined stripes of the brightest opaque colours, and the China Agate has a milk-white ground, in parts semi-transparent, variegated with a dark-red; and this last seems to come nearer to Pliny's poetical but somewhat obscure description than any other stone. "Murrhine vases have a lustre without any strength, or more properly a polish than a lustre. But their value lies in their variety of colours, the spots occasionally turning themselves into purple and white, and a third made up of both; the purple, by as it were a transition of colour, becoming fiery, or the milky hue turning red. Some especially admire the edges of these spots, and a kind of play of colours such as is seen in the rainbow. Opaque spots are most esteemed; any part transparent or pale is a defect, as are also flaws and warts not projecting from the surface, but as if implanted within the substance itself. There is some recommendation also in their agreeable smell." This description exactly agrees with that of a polished Agate: the absence of lustre, the infinite variety of shades, and even the defects noticed, can be observed in no other material of sufficient size for the purposes to which the Murrhine was employed. It has been supposed that this stone was Fluor Spar, the Blue John of Derbyshire; but, besides the fact that this is almost peculiar to England, I do not believe that fragments of it have ever been found amongst Roman remains. Even granting that a few fragments of the fluor spar of undoubted antiquity *did* occur, the great frequency of the pieces of Agate vases is a sufficient proof that they once constituted the class of vessels so abundant under the Empire. For, if the whole vessels of an imperishable substance were so plentiful at a former period, it is a logical consequence that at least their fragments must be as abundant at the present day, as no possible circumstance could have swept them out of existence.

Another corroboration of this opinion is the fact of many glass vessels being found, both entire and broken, which are very good imitations of striped Agates; and Pliny expressly mentions, amongst the varieties of coloured glass made in his day, one imitating the Murrhine.

The most splendid Agate vase in existence is the two-handled cup, *carchesium*, of the capacity of a sextarius (above a pint), and covered with Bacchanalian subjects, presented by Charles the Bald, in the 9th century, to the Abbey of St. Denis, and which was always used to hold the wine at the coronation of the kings of France. In this case, then, we trace a Murrhine cup almost up to the days of the Roman Empire; and, from the style of art displayed upon it, the vase might, without hazard, be ascribed to the epoch of Nero himself.⁷ We may conclude, from Pliny's mode of expression, that, although flat saucers of Murrhine were not uncommon, the thinness of the slabs of the stone made a scyphus, or deep hemispherical bowl, an extraordinary rarity; for, among the show of Nero's vases in the Palace-garden theatre "were the broken fragments of one scyphus preserved in a case with as much care as the corpse of Alexander the Great, and exhibited to the public to excite, I suppose, the grief of the age, and to cast odium upon fortune!"

At the present day we might still say with Pliny, "The East sends us Murrhine vases." Collections of Agate vases formed in India frequently occur in the auctions of articles of *virtù* in London, where they still fetch high prices, though

⁷ This cup bore upon its setting the legend added at the time of its donation to the abbey by Charles:—

"Hoc vas Christe tibi devota mente dicavit
Terius in Franco sublimis regimine Carolus."

It was stolen in Feb. 1804 from the Museum, and the ancient setting of

gold enriched with precious stones melted down by the thieves; but the vase itself was fortunately recovered undamaged, and has been remounted in an elegant style by Delafontaine.

by no means equal to those paid for them in their native country. It was grievous to read of the amount of skill, labour, and value, annihilated in a moment, when, at the recent sack of the palace of Delhi, our soldiers, with the brutal love of destruction that characterises John Bull, smashed chests upon chests full of these elegant productions. Had they been preserved and sent to England they would have added largely to the amount of prize-money, being worth considerably more than their weight in gold.

ALABASTER.

This stone was originally known as the *Onyx*, a name afterwards exclusively appropriated to the gem still called by that name. From the description of it given by Pliny it must have been the stone now known as the Oriental Alabaster, "being of the colour of honey, variegated with spiral spots, and opaque." It came from Arabia and Egypt, but the best sort of it from Carmania. It was at first only used for making drinking-cups, but soon became so plentiful at Rome that Pliny mentions columns thirty-two feet long formed of it, and also a dining-room of Callistus (a freedman of Claudius) adorned with more than thirty such pillars. The columns and pilasters presented by Mahomet Ali to the building of the church of S. Paolo-fuori-le-Mura at Rome are above forty feet in length, of a single block each, and of the most beautiful quality. This stone is often of a rich brown mixed with lemon-colour; and this kind is quarried to a large extent at Volterra, where it is worked up into those elegant vases of colossal size now often to be seen in the London shops. Pliny says that it received the name of Alabaster from its being used to make the little jars for holding perfumes, which were called *alabastra* as being

shaped like an amphora without handles; hence the stone of which they were commonly made got the designation of *Lapis Alabastrites*. These perfume-jars are of common occurrence and of all sizes, both in this material and also in glass and pottery, but those of stone were thought to preserve the perfume better. Hence we see that St. Mark's "*alabastrum unguenti nardi spicati*" and the "*nardi parvus onyx*" of Horace meant the same thing. The "box of ointment" of the Jacobean translators gives an incorrect idea of the passage, an error due to their notions being biassed by the usages of their own times, when ointments, as at present, were solid compounds of lard, and necessarily kept in *boxes* for use; a mistranslation the more absurd when we consider the epoch and the country where the event recorded by the evangelist took place. But the *unguenta* of the ancients were merely scented oils obtained by macerating spices or flowers in olive oil, and thus obtaining their essence by pressure. The neck of the Alabaster vessel was *broken* off when its contents were required, as it had been hermetically sealed by the maker to prevent the evaporation of the scent. In the museum at Naples are shown some large Alabaster jars from Pompeii still retaining a strong perfume from their former contents, at which fact the Emperor Nicolas, on his visit, "*rimase sorpreso*," as well he might; at least so says the custode of the gallery. We find a large number of canopi, or sacred Egyptian vases, with a cover shaped like the head of a mummy, made of this stone. The commoner variety used for these little vessels is exactly like that of Derbyshire worked up into similar forms at the present day. This stone deserves the name of *Onyx* much better than the gem to which, at a later period, the term was exclusively confined, for it is of the exact colour of the finger-nail, and shaded in the same manner. The *Onyx* vases already mentioned as

having, as well as Murrhine, been so degraded by Heliogabalus, must have been some elegant drinking-vessels of the Oriental Alabaster designed to adorn the tables of his more tasteful predecessors.

ROCK-CRYSTAL.

The Murrhine Vases naturally introduce the subject of those of Crystal, which were as much in fashion among the Romans as with their imitators, the wealthy Italians of the Cinque-Cento period. The ancients had a notion that this stone was only hardened ice, and hence its name, the Greek word for *ice*. This theory was supposed to be confirmed by the circumstance that their chief supply of Crystal was obtained from the Alps, where it still abounds in the *moraine*, or *débris* left by the glaciers. The Romans used it almost exclusively for making cups and vases. I have met with hardly any antique intagli in Crystal; no doubt its want of colour operated against its use as a ring-stone. The engravers of the Revival, on the other hand, often employed it for intagli, and executed some of their best works in this stone. Vasari especially praises the Crystals of Giovanni del Castel Bolognese,⁸ the most eminent of those early artists. Their engravings were not so much intended for signets as for personal ornaments, and to adorn articles of plate, where largeness of extent and transparency were rather recommendations than otherwise. Pliny mentions the lucrative fraud then common of staining Crystal so as to imitate Emeralds, Amethysts, and other coloured gems, but forbears to give the process, because even luxury, as he says, ought to be protected against imposition. Dutens, however, is less scrupulous; he asserts that a

⁸ Vasari names in particular the Tityus and the Ganymede engraved by him for Ippolito dei Medici.

Crystal heated and plunged into the tincture of cochineal, becomes a Ruby; into a mixture of turnsole and saffron, a Sapphire; and so on for the rest, always assuming the colour of the tincture into which it is plunged. Or the same end may be obtained by macerating the crystal for some months in spirits of turpentine, saturated with a metallic oxide of the required tint. I believe it much more probable that the ancients employed the more simple method now so much in use, and to which most of the Carbuncles of the London shops are due, and that is to cut the crystal to the proper form, and painting its back the required colour, so to set it in the piece of jewellery. The fact that ancient gems were usually set with a back to them, would greatly favour the execution of this fraud, to baffle which, in the case of the Chrysolithus for instance, Pliny expressly mentions that the stone was set *open*. Although the Roman jewellers made false Jaspers of three colours by cementing as many slices of different stones together, and hence its name *Terebinthizusa*, they do not seem to have been acquainted with doublets, the favourite device of the modern trade, by which a thin slice of real stone is backed by a facettèd Crystal, and then so set as to conceal the junction. The ancient frauds in coloured stones were entirely confined to the substitution of pastes for the true, to detect which Pliny lays down many rules, some fanciful enough, but containing one that is infallible, that by means of a splinter of Obsidian a paste may be scratched, but not a real stone. We may as well conclude the subject of false gems, which falls appropriately under the head of the Crystal, so much used in their fabrication, by quoting the curious observations of Camillo Leonardo, of Pesaro, on the various frauds practised by the jewellers of his own times, 1502. Many of these are extremely ingenious, and the recipes for them doubtless handed down by tradition from remote ages.

Besides pastes of Smalto, which exactly counterfeited the true gems, they converted common stones into others of a more precious quality by various curious processes. Thus a Garnet cut very thin and backed with Crystal, was sold as a Ruby; an Amethyst hollowed out and filled with a coloured tincture imitated the Balais, which gem was likewise counterfeited by a thin tablet of Amethyst laid upon a ruby-coloured foil. Diamonds were forged by cutting a pale Sapphire or a Beryl to the right shape, and then backing it with the proper tincture. To understand this, it must be observed, that until quite lately Diamonds were always set upon a black ground, to give them lustre: on the proper preparation of which Cellini treats at great length in his 'Oreficeria,' as being of the utmost importance to the effect of the stone. To baffle the test of the file, which no paste can resist, the forgers of the time of Camillo Leonardo chiefly imitated the Emerald and the Peridot, as these gems are in reality but little harder than glass, and yield to the file almost as easily as their counterfeits in paste; so that the sole means of detection remaining, was to examine them by the light of a candle, when the colour of the false gems would be found to fade away the more intently they were viewed.

The annexed epigram is entitled in the Anthology, "Upon an Engraved Crystal," in which case it would give us the name of another ancient engraver of the Greek period; but the expressions of the epigram itself would rather make me conclude that the portrait was painted in gold on the back of a piece of glass, which was covered by another piece fused upon it, so that the painting appeared enclosed in the substance of the glass, of which art some beautiful specimens are still preserved.⁹

⁹ The finest probably of these is property of Dr. Conyers Middleton, and the portrait of a child, once the property of Dr. Conyers Middleton, and now in the British Museum.

DIONORUS, Anthol. ix. 776.

“ The art and colour well might Zeuxis claim,
But Satyreius is my author's name,
Who on the tiny crystal drew the face,
Arsinoe's portrait full of living grace ;
An offering to his queen, though small in size,
No larger work with me in merit vies.”

Renaissance Crystal intagli are sometimes found in jewellery of that period, set with the engraved side downwards upon a gold or azure foil. The effect thus produced is very singular, the figures appearing as though cut in relief in a transparent gem, a Topaz or Sapphire, and the deception is so perfect as only to be detected by the touch. A veiled bust of the Madonna, thus treated and set in a ring, the first instance of this ingenious device that came under my notice, puzzled me for some time, by the apparent relief of the work upon an actually plain surface. This style of work in Crystal is also mentioned by Mariette, in whose time several had been circulated amongst the Parisian connoisseurs as antiques of the Roman period.

The Romans used to give fabulous prices for vessels in this material. Pliny mentions a lady, and one too by no means wealthy, who bought a Crystal *trulla* for a sum equal to 1500*l.* of our money ; and Nero, to avenge himself upon the world, when informed of his deposition by the Senate, threw down and smashed two crystal bowls, *scyphi*, engraved with subjects from Homer.

Crystal is found in very large masses ; the largest known to the Romans weighed 50 pounds, and was dedicated by Livia in the Capitol ; and a bowl is mentioned which held four sextarii, or about two quarts. I myself have seen a rolled Crystal more than a foot in length, of a perfect egg-shape, and of admirable transparency. It had formed a part of

the plunder of Delhi, and was intended to be cut into a vase, the capacity of which would doubtless approach to that recorded by Pliny.

The balls of Crystal occasionally found amongst ancient remains were used as burning-glasses.¹⁰ That they were thus employed by surgeons appears from the passage of Pliny: "I find it asserted by physicians, that when any part of the body requires to be cauterized, it cannot be better done than by means of a crystal-ball held up against the sun's rays." Orpheus (170) recommends their employment to kindle the sacrificial fire :

"Take in thy pious hand the Crystal bright,
Translucent image of the Eternal Light.
Pleased with its lustre, every power divine
Shall grant thy vows presented at their shrine.
But how to prove the virtue of the stone,
A certain mode I will to thee make known :
To kindle without fire the sacred blaze,
This wondrous gem on splintered pine-wood place,
Forthwith, reflecting the bright orb of day,
Upon the wood it shoots a slender ray.
Caught by the unctuous fuel this will raise
First smoke, then sparkles, then a mighty blaze.
Such we the fire of ancient Vesta name,
Loved by th' immortals all, a holy flame.
No other fire with such grateful fumes
The fatted victim on their hearths consumes ;
Yet though of flame the cause, strange to be told,
The stone snatched from the blaze is icy cold."

The Cairngorum, so much in fashion at the beginning of this century, that Mawe (1804) speaks of ten guineas being the usual price of a seal-stone, is only a Crystal coloured a

¹⁰ They were also held in the hand ness during the fiery heat of the
for the sake of their refreshing cool- southern summers.

dark orange or deep brown by some metallic oxide. Some of them are certainly very beautiful, much resembling the Jacinth, and are by far superior in lustre to the German Topaz, a stone of the same kind, and now imported in such large quantities.

Crystals and Agates are not uncommon in collections, containing a small quantity of water in a cavity left within them at the time of their formation. I am informed that in California the miners often meet with large nodules of quartz thus filled, and are often killed by drinking the liquid contained therein, so strongly impregnated is it with silica. This is the Enhydros of Pliny and the Mediæval mineralogists, who looked upon it as a most wonderful miracle of nature, to judge from the numerous epigrams, of which it has been thought worthy by Claudian and other poets:—

EPIGRAM VIII. *et seq.*

“ When the Alpine ice, frost-hardened into stone,
First braved the sun, and as a jewel shone,
Not *all* its substance could the gem assume ;
Some tell-tale drops still linger in its womb.
Hence with augmented fame its wonders grow,
And charms the soul the stone’s mysterious flow,
Whilst stored within it from Creation’s birth,
The treasured waters add a double worth.

Mark where extended a translucent vein
Of brighter crystal tracks the glittering plain.
No Boreas fierce, no nipping winter knows
The hidden spring, but ever ebbs and flows ;
No frosts congeal it, and no Dog-star dries,
E’en all-consuming Time its youth defies.

A stream unfettered pent in crystal round,
A truant fount by hardened waters bound,
Mark how the gem with native sources foams,
How the live spring in refluent eddies roams !

How the bright rainbow paints the opposing ray
 As with the imprisoned winter fights the day !
 Strange nymph ! above all rivers' fame supreme,
 Gem yet no gem ; a stone, yet flowing stream.

Erst, while the boy, pleased with its polish clear,
 With gentle finger twirled the icy sphere,
 He marked the drops pent in its stony hold,
 Spared by the rigour of the wintry cold ;
 With thirsty lips th' unmoistened ball he tries,
 And the loved draught with fruitless kisses plies.

Streams which a stream in kindred prison chain,
 Which water *were* and water still remain,
 What art hath bound ye, by what wondrous force
 Hath ice to stone congealed the limpid source ?
 What heat the captive saves from winter hoar,
 Or what warm zephyr thaws the frozen core ?
 Say in what hid recess of inmost earth,
 Prison of fleeting tides, thou hadst thy birth ?
 What power thy substance fixed with icy spell,
 Then loosed the prisoner in his crystal cell ?



Hercules Mad : Etruscan. Crystal.

I have read of one of these pregnant crystals exploding when held in a person's mouth, in consequence of the expansion of the inclosed fluid, and lacerating his palate very dangerously. Whether the water was inclosed within the stone at the time of its formation, as the ancients supposed, or afterwards infiltrated through its pores in the lapse of ages, is still a matter of dispute. I have myself seen the hollow spherical portions of the stems of Venice glasses nearly filled with water, which has penetrated either through their sub-

stance, or else through some imperceptible fissures in the soldering, during the few centuries they have lain under ground; and curiously enough the marks made by the successive deposits of the rising liquid on the interior of the glass exactly imitate the natural layers of an Agate. At the sale of Barbetti's collection of Phœnician antiquities, some hollow rims of glass sepulchral urns filled with water, which had doubtless penetrated in the same manner as in the spherical bosses above mentioned, were bought at high prices by credulous antiquaries, who took for granted the truth of the wily Italian's assertion, that they contained a wonderful perfume with which they had been filled at the time of their manufacture. And to increase the prodigy, he pretended that this liquid was of so powerful an odour, that one of these rims having been broken by accident in a room in Paris, all the persons present were immediately driven out by its strength!

JADE.

Jade is a semi-opaque stone of a soapy appearance, and varying in colour from a dirty white to a dull olive. Amulets made of it were believed in the Middle Ages to prevent all diseases of the kidneys; hence the name of the stone from *Hijada*, the Spanish for "kidney," and its scientific title of *Nephrite*. Many vases and figures in this material are to be seen in collections, but few of them probably are antique. The sole merit of these works lies in the extreme difficulty of their execution on account of the excessive hardness of the stone, which circumstance greatly recommends it to the Chinese and to their brethren in taste, certain amongst the rich and curiosity-loving of the English collectors. I scarcely believe the stone to have been known to the ancients, from the fact that its popular name is due to the Spaniards or

Portuguese, who first imported it from the East ; for if commonly employed in ancient art,¹ we should have expected to find it still designated by some Italian corruption of its Latin synonym. Pliny mentions a Syrian stone, the Adadunephros, or “kidney of Adonis;” but as there was also the “eye” and the “finger” of the same personage represented by gems, we may conclude they all owed their names merely to their similarity in form to those parts of the human body. Even had the Jade been known at an earlier period, the ancient love of the beautiful and their correct taste would have prevented their throwing away their labour and time upon so ugly and refractory a material.

JET.

This name is a corruption of *Gagates*, its ancient appellation ; but it was then chiefly used in medicine and in magic, as a means of fumigation. It was also employed for staining pottery an idelible black : “*ficilia ex eo inscripta non delentur.*” Anklets and bracelets are found turned out of it, as well as of the similar substance, *Kimmeridge coal*, the works of the Roman-British inhabitants of our coasts;² but the intagli in Jet palmed off upon antiquarians so abundantly within these few years, are known now to be recent forgeries.

¹ I have, however, met with one or two intagli of the Gnostic class upon either this stone or else a bad plasma, not to be distinguished from it by the eye.

² A complete suite of Jet ornaments, comprising two hair-pins with heads composed of pine-cones, almonds, and trefoils, bracelets,

rings, a half-crotalon with the head of Medusa, in all 26 articles, were discovered in two stone-coffins, deposited under the chief entrance of Saint Geréon, Cologne, at the time of the repairs of that church in 1846. They are supposed to have been the ornaments of some priestesses of Cybele.

THE FORMS OF ANTIQUE GEMS.

In the age of Pliny the favourite form was, he says, the oblong, meaning thereby the very long oval in which antique gems are so often to be found. In the next degree of favour stood the lentile-shaped, or a sphere much flattened on both sides, now called a "stone cut en cabochon," or in jewellers' phrase "tallow drop." Lessing has some ingenious speculations as to the general adoption of this form, which is to be seen in fully half the number of intagli existing. He endeavours to show that it facilitated the engraving of the design, and assisted the perspective by bringing the various depths of the intaglio into the same plane. But the most probable motive was, that the projecting surface of the gem forming a corresponding depression in the wax might serve to protect from defacement the impression of the intaglio in that soft material.³

Next in favour came the cycloidal or elliptic shape, a very common one in the intagli of the preceding century; and last of all the circular. Angular stones were disliked, and indeed we never meet with fine intagli cut upon such, for whenever gems of this shape *do* occur, which is but seldom, they present engravings belonging to the latest ages of the Empire; and such are also octangular. A square antique intaglio I have never met with. Gems with a hollow or irregularly projecting surface were naturally regarded as inferior to those of a flat and even exterior. To understand this remark, it is necessary to have seen in what manner the Romans employed the harder precious stones, as Rubies and Sapphires, and we find that they never attempted to reduce them to any regular shape, but set them retaining their natural form, to which the lapidary had

³ Besides, the protuberant form of ornamental and showy when worn the coloured gem rendered it more on the finger.

contrived to give a certain degree of polish. Hence such a stone, if naturally presenting a regular shape, or that of the original crystal, was much more ornamental than those occurring, as is most usual, in the ungainly form of irregularly rolled pebbles. The most valuable coloured gems, almost as rude (with the exception of a slight polish) as when picked up amongst the gravel of the Indian torrent, may be seen adorning, more by their intrinsic value than by their beauty, the most precious treasures of antiquity, as the Iron Crown, that of Hungary, and the five coronets of the Gothic kings of Spain now deposited in the Hôtel de Cluny.

CHEMICAL COMPOSITION OF GEMS.

Diamond: pure Carbon. Specific gravity, 3.50; hardness = 10.

Sapphire: nearly pure Alumina. Sp. gr., 4; hardness = 10 nearly.

Ruby: the same, but slightly less hard.

Emerald: Glucine, 12.5; Silica, 68.5; Alumina, 15.75; Oxide of Chromium, 0.3; Oxide of Iron, 1; Lime, 0.25. Sp. gr., 2.7; hardness = 7.5 to 8.

Jacinth: Zircon, 70; Silica, 25; Oxide of Iron, 0.5. Sp. gr., 4.5 to 4.7; hardness = 7.5.

Garnet: Silica, 33.75; Alumina, 27.25; Oxide of Iron, 36; Oxide of Manganese, 0.25. Sp. gr., 4.2; hardness = 6 to 7.

Amethyst or *Coloured Quartz*: Silica, 97.5; Oxide of Iron, 0.75; Alumina, 0.25. Sp. gr., 2.6; hardness = 7.

Turquoise: Alumina, 73; Oxide of Copper, 4.5; Oxide of Iron, 4; Water, 18. Sp. gr., 2.8; hardness = 5.

Lapis-lazuli: Silica, 49; Alumina, 11; Lime, 16; Soda, 8; Oxide of Iron, 4; Magnesia, 2; Sulphuric Acid, 2. Sp. gr., 2.95; hardness, scratches glass.

Calcedony (including *Carnelian*, *Onyx*, *Plasma*): Silica, 84; Alumina, 16. Sp. gr., 2.6; hardness, somewhat greater than Flint.

SECTION II.—ART, STYLES OF.



Horses of Achilles mourning over the slain Patroclus. Greek. Yellow Sard.

ON THE TESTS OF ANTIQUITY IN GEMS,

AND ON

THE INSTRUMENTS USED BY THE ANCIENT ENGRAVERS.

ON commencing the Second Section of this work, which treats of the Intagli and Camei considered in themselves, it will be a most suitable introduction to the subject, to make a few observations on the two points, forming the title of this chapter, so intimately connected with each other. No definite rules can indeed be given, as nothing but long experience, and the careful examination of large numbers of gems belonging to every period, can supply that almost intuitive perception in the art, so impossible to be acquired in any other manner. The remarks that follow are the result of much thought, and of many years study of antique gems, and of the careful examination of some of the principal European collections.

If we consider the purpose to which intagli were almost exclusively applied, at the time of their execution, namely, that of signets, to be worn set in rings, we shall naturally look with suspicion upon any engraved gems the dimensions of which

exceed those of an ordinary ring-stone ; and it will be found, by observation, that this rule has but very few exceptions, and that almost all intagli of a large size are of a period subsequent to the revival of the art. Of course we except from this rule the large gnostic gems which were intended to be worn on the dress, or to be carried on the person as amulets, and not to be employed as signet-rings. For purposes of ornament to dresses, plate, and jewellery, the Romans preferred precious stones the beauty and value of which consisted in their colour alone, and which were employed uncut ; or else camei which their size and style of work rendered effective when viewed from a distance, whereas intagli make no show unless upon a close examination. The finest antique cameo that ever delighted my eyes was a large profile head of Jupiter Dodonæus on Sardonyx, still enclosed in the oxidised iron-setting that had formerly served to fix it upon the cuirass of some Roman general. This custom explains the use of the fine perforation running through the whole width of the stone, so often to be observed in really antique camei, and which is merely of sufficient size to admit a thread for the purpose of affixing the cameo to the dress. But to return to the point noticed at starting. The small size of antique intagli, so observable on looking over any collection, will of itself prove what a striking difference *this* peculiarity alone makes between them and the works executed after the revival of gem-engraving. Ever since that period, the artists have always preferred stones of considerable magnitude ; and their best works are to be seen on gems of larger size than those used for their less important compositions, which is exactly the reverse of the antique practice. Groups of several figures, and representations of well-known historical events, are an almost certain mark of modern work ; whilst the drawing of the earlier Cinque-Cento engravers, has all

the quaint and exaggerated character to be found in the paintings on the Majolica of the same period.

Again, antique gems are often of a very irregular form on the back, in fact retaining their natural shape, the edge being merely rounded off for the convenience of setting. This was done to increase the depth of colour of the gem, which would have been lowered had its thickness been diminished. The back of the gem also, although highly polished, will often show traces of deep parallel scratches, occasioned by its having been first rubbed down into shape on a slab of emery, and afterwards brought to a lustrous surface by some peculiar process ; whereas modern stones are ground down and polished at once upon the same instrument, a revolving disk of copper moistened with oil, and emery powder, which gives them a perfectly smooth and even surface.

A high degree of polish on the face of the gem, although in itself a suspicious circumstance, does not however infallibly stamp the intaglio as a work of modern times, for it has been the unfortunate practice with jewellers to repolish the surface of a good antique intaglio, in order to remove the scratches and traces of friction which true antiques usually present, so as to make the stone look better as a mere ornament when mounted. This is a most ruinous operation ; for besides making the intaglio itself appear of dubious antiquity, it also destroys the perfect outline of the design, by lowering the surface of the stone ; and many lamentable instances present themselves of admirable engravings almost entirely spoiled in this way, for the sake of a little outward improvement. On the other hand, a rough and worn surface must not be relied on as an infallible proof of antiquity, for Italian ingenuity has long ago discovered that a handful of new-made gems crammed down a turkey's throat will in a few days, by the trituration of the gizzard, assume a roughness of exterior apparently

produced by the wear of many centuries.¹ Hence, if a stone has too rough a surface, it requires to be examined still more carefully, as affording good grounds for suspicion by its exaggerated ostentation of antiquity. In a word, though Faith may be the cardinal virtue of the theologian, Distrust ought to be that of every gem-collector; so beset is he, at every step, by the most ingenious frauds, devised and carried out by the roguery and dexterity of three centuries.

Again, though the *stone* itself may be antique, yet it may have been used as the vehicle of another species of deception, and that the most difficult to guard against of any that I know. It is a common practice of Italian engravers to get antique gems bearing inferior intagli upon them, and to retouch, or sometimes to work over again entirely, the whole design; thus producing an apparently antique intaglio of a good style, upon a stone the appearance of which lulls to sleep all suspicion. This is the most common fraud of modern times, and one against which the only safeguard is the careful examination, with a lens, of the entire intaglio; when, if some portions of the work bear a fresher and higher polish than others, and, above all, if they are sunk deeper into the stone than is required by the exigencies of the design, a shrewd guess may be hazarded that this deception has been practised.

Dealers, for their own purposes, foster a belief in their customers, that a high polish in the interior of the intaglio is a sure proof of its antiquity; but this doctrine is altogether false, for all the good Italian engravers give to their works an internal polish fully equal to that of the antique. It merely requires the expenditure of a little extra time and labour in working over the interior of the cutting with a

¹ The effects of this treatment are very observable in many of the Poniatowski gems.

lead point charged with fine diamond powder. Another popular notion is, that soft wax will not adhere so readily to antique as to modern intagli, but this circumstance merely depends upon the relative degree of polish of the stones. The truest test of antiquity (leaving out the question of art for a subsequent discussion), appears to me to be a certain degree of dulness, like the mist produced by breathing on a polished surface, which the lapse of ages has always cast upon the high lustre of the interior of the intaglio. This appearance is not to be imitated by any contrivance of the modern forger, and, when once remarked, is so peculiar in itself, as to be easily recognized ever afterwards. So constant is this peculiarity in works of genuine antiquity, that its absence is always to be regarded as very unfavourable to the authenticity of any intaglio. The effect also of the real wear and tear of time upon the surface of the stone, is rather a fine roughness, like that of ground-glass, than the deep scratches and indentations produced by the violent methods of the dealers, or, as they are justly styled by Pliny, "*mangones gemmarum*," personages whose reputation for honesty was precisely the same in his time as it is at the present day. Again, a very satisfactory proof of antiquity is found when the engraving appears to have been executed almost entirely with the diamond-point; that is to say, when all the hollows seem cut into the stone by a succession of little scratches repeated one upon the other, while the deeper parts of the design show that they have been sunk by means of the *drill*, a tool with a blunt and rounded point, producing a succession of hemispherical hollows of various dimensions. Some intagli even occur, entirely scratched into the stone by means of the diamond-point alone, especially the works in shallow relief of the Etruscan and early Greek epoch; and, as a general rule, according to the observation of the famous gem-engraver

Natter, the extensive use of the diamond-point is the great distinction between the antique and the modern art. The word itself, *scalpere*, used by the Romans to express the process of engraving on gems, signifies *to scratch*, and, in itself, supplies a proof of the manner in which the work was carried on when first introduced to their notice; and the Greek technical term *γλαφεω* has the same primary signification. The use of the diamond-point is particularly observable in the execution of the hair of portraits, when of good work of almost every epoch of antiquity, where it produces an admirable and natural effect which cannot be given by the modern instruments. Of these latter it may be proper to say a few words in this place. The principal among them, by means of which all the above named operations, both of producing lines and hollowing out depressions in the design, are carried out, is the *Wheel*, a minute disk of copper fixed on the end of a spindle, which is put into rapid motion by a kind of lathe. The fine edge of this tool, moistened with oil and emery or diamond dust, speedily cuts into the hardest gems, and by repeating and prolonging the lines thus produced, the minuter portions of the design are executed. The larger and deeper hollows are still sunk by means of a round pointed drill, substituted for the cutting disk, and acting just as the ancient drill, which last, however, appears to have been always worked by the hand, by means of a bow, in the same way as the similar tool still used by jewellers. The modern method, though greatly expediting the operation — for Mariette speaks of Smart, a celebrated English engraver of the last century, finishing several good portraits in one day — yet renders the operation more mechanical and stiff, whereas the ancient *sculptor*, working with his diamond-point, like the etcher with his needle, had all the freedom of hand and boldness of the latter artist.

These diamond-points, so often alluded to, were produced by splintering a diamond by the blow of a heavy hammer. Pliny adds a jeweller's story (probably invented to keep up the mystery of the business), that it was necessary first to macerate the stone in goat's blood, and that even then it often split both the anvil and the hammer. These little splinters were then fixed into the end of an iron tool (pretty much as a glazier's diamond is at present), and cut with ease into the hardest of the coloured gems,—“nullam non duritiem ex facili cavantes.” The Naxian stone, also used by the ancients, both in cutting and in polishing gems, was our *Emery*, a combination of corundum and iron, and which is still exported for the same purposes from that island. To the present day the sole means employed by the Hindoos for polishing the hardest stones, even the diamond, is by rubbing them by hand upon an iron slab, covered with corundum-powder and oil, which explains the uneven manner in which the facets on Indian gems are always cut. The *terebrarum fervor*, or the rapidly-revolving drill, was of the greatest service to the ancient engraver; and this observation of Pliny's is fully borne out by the appearance of many intagli, especially of the majority of the figures upon the Etruscan scarabs, which were evidently produced by means of a blunt drill and emery-powder exclusively. In these, the whole design is carried out by the juxtaposition of a number of hemispherical hollows of various extent, touching and overlaying each other, by which inartificial method such extraordinary caricatures of man and beast were produced by the Etruscan artist. And their failure in the art of intaglio-cutting strikes us the more, and must, with the greater confidence, be ascribed to the imperfect mechanical means at their command, when we observe that the very rudest intagli, and those evidently the very first essays of the art,

appear on the base of scarabs, which are themselves cut out of the stone with the greatest skill and the most elaborate finish; often, also, set in jeweller's work, displaying the greatest taste and most perfect workmanship; all circumstances pointing out the scarab as the property of a person able to command the utmost efforts of the artistic skill of his period.

Some writers quote the *Ostracias* as being named by Pliny as employed in gem-engraving, and they still more absurdly suppose it to have been the bone of the cuttle-fish; but his words only imply that it was hard enough to scratch other gems, a circumstance the more remarkable, as it was only a species of sea-shell. Lippert, himself a gem-engraver, was of opinion that the instrument used by the ancients both cut and polished the stone at the same time, inferring this from the circumstance of so many rude and apparently unfinished intagli being as highly polished in the interior, as those completed in the most minute details, and of the most elaborate style of workmanship; but this argument does not seem to me altogether conclusive. It *might* have been that the ancients possessed some mode of polishing the *intaglio*, with very little trouble, by a merely mechanical process, which the lowest class of engravers, who worked entirely for the populace, were equally able to impart to their work, as the most skilful artists. In Pliny's time² the wheel does not appear to have been in use, otherwise he would certainly have mentioned so important an innovation, which, when once introduced, speedily drove all other means of engraving out of the lapidary's workshop, in consequence of the extreme facility and rapidity of its operation. Of the use of this

² Pietramari, an old Roman dealer in gems, of great experience, was of opinion that the wheel began to be first used under Domitian.

instrument we see abundant marks in the intagli of the Lower Empire ; more especially are its effects observable in the letters occurring upon the gnostic amulets, where we find the square form of the characters usually employed, on account of the difficulty of cutting curved lines by an instrument revolving in a vertical plane, and consequently working forward on the surface presented to it, and in a straight direction. The rude Sassanian intagli (to be hereafter noticed) appear to have been universally cut by the wheel ; and the artist must have employed but a single disk for the whole of his work, to judge from the fact, that all the lines composing his figures are precisely of the same thickness, and that usually very coarse. The wheel was probably introduced into Europe from the East, when the commerce in gems began to attain such considerable extent as we find it had done even in the time of Pliny ; and the Persian conquests of Trajan, in the next century, must have greatly widened the relations between the two universal empires of Rome and Parthia. Down to the fall of the Empire, and even later, as we shall see (Cross of Lotharius), this instrument remained the sole means of engraving the barbarous productions of expiring taste. In the East, the mechanical processes have always been kept up in full perfection, from the Mahometan custom of wearing signets engraved on gems, often the hardest and the most precious that could be procured. I have seen Persian legends admirably cut on the finest Sapphire and the Ruby ; and these long inscriptions formed in beautiful flowing curves, united in the most intricate cyphers, and adorned with flowers and stars, required as much taste and skill in their execution as the classical designs of the European artist. At the period of the Revival, the instrument, together with the art of gem-engraving, was again brought into Italy from the East, probably not before the time of Lorenzo de' Medici,

under whose patronage flourished Giovanni delle Carniole, the earliest gem-engraver of whom any trace can be found.

But to make one concluding remark on the antique method, it is my firm conviction, deduced from the appearance of the best and truly genuine intagli, that the artist having hollowed out his design to the requisite depth by means of the drill, and having completed all the details with the aid of the diamond-point, afterwards disguised all traces of the instruments employed, by the high polish which he gave to the interior of his work; thereby producing that appearance so characteristic of true antique intagli, that soft and flowing outline, which leaves nothing angular or sharply defined, but rather makes the whole design appear to have been modelled by the most delicate touch in a soft and yielding material. So true is this, that one is frequently inclined to view an excellent antique work with suspicion as a modern paste, until the reality of the *gem* is tested by the file, so strong a na ppearance does it bear of having been produced at once by casting in a fused material, rather than of a design cut out by patient labour on the hardest and most refractory of substances.

On account of the extreme minuteness of detail observable in many antique intagli, some writers on this subject have boldly asserted that the artists who executed them must have had some means of assisting the eye equivalent to our magnifying-glasses. In confirmation of this theory, a story is told of certain intagli found at Pompeii in company with a crystal lens, and they at once jump to the conclusion that this lens had been employed in the engraving of these particular gems. But it is most probable that the supposed lens was nothing more than a crystal or pale amethyst, cut *en cabochon*, and prepared *itself* to be engraved on, a form of which innumerable instances occur among transparent stones both with intagli upon them and plain. A large pale amethyst

in my collection of a very spherical form, and in which the intaglio, a hippocampus, occupies but a small portion of the surface, acts, when properly applied, as a magnifying lens of great power, a quality which one cannot but suppose must in similar cases have attracted the notice of some of the ancient possessors of gems of this form. I have also seen an antique Greek ring set with a crystal or white paste, of a perfect lenticular form, which certainly, if found by itself, might very well have passed for an ordinary magnifying-glass. But Pliny, who mentions so carefully the various instruments of the engraver's art, and who possessed much more than a merely theoretical knowledge of the subject, would never have omitted this most important auxiliary both to the artist and the amateur, especially where he actually mentions that "the engravers, when their sight was fatigued by the excessive strain required in their work, refreshed their wearied eyes by looking at an emerald." Seneca, indeed, says (*Nat. Quæst.* i. 6), that glass globes filled with water make small and obscure letters seen through them appear quite legible and distinct; but he ascribes the magnifying power to the nature of the water, and gives no hint that this discovery had been applied to any useful purpose in his day. It has been thought that the ancient engravers directed the light from a small window, or from a lamp, so as to pass through one of these globes, and fall in a concentrated spot upon their work, in the same manner as is still practised by jewellers when working upon minute objects by lamp-light; and as the custom can be traced back for many centuries, there is a possibility of its having been handed down by the traditions of the trade from remote antiquity.

Engravers, however, actually execute their work with but little assistance from the magnifier, the chief use of which is to ascertain the progress made in the cutting of the design, and the sinking of the intaglio into the stone, by repeated

examinations of the impression taken at short intervals in soft wax. For by the very nature of the operation, in which the stone is held, cemented upon a handle, against the edge of a rapidly-revolving disk smeared with oil and diamond-dust or emery-powder, the work itself is concealed from the eye of the artist, who regulates the cutting of the design more by the feel and by the instinct derived from long practice, than by his actual observation; whilst he keeps a check upon the destructive power of the instrument by the repeated application of the lens to the stone and to the wax impression. Again, the dust and oil combined fill up the lines as the work proceeds, so that the actual view of the cutting itself is rendered practically impossible. Even in intagli executed by the diamond-point alone, the same inconvenience existed, if we suppose the ancient engravers employed this tool in the same manner as the Italians in Vettori's time, "who fixed a diamond splinter in the end of an iron-pencil a span in length, and rubbed it to and fro over the lines to be traced on the stone, dropping upon the place occasionally emery-dust and oil." Such being the case, the whole seeming difficulty is at once removed, for the impressions of the most minute intagli, the early Greek, are easily distinguishable in every detail to an eye practised in the examination of such objects; whilst the works of Roman date, from the bolder and less delicate nature of their finish, offer no difficulty whatever to the ordinary sight, which is able to catch every particular of the design without any artificial assistance. As for really antique Camei, the work in them is so bold, or if we may use the term, of so unfinished a character, their sole purpose being to produce effect at a distance, that the artist could have experienced scarcely more difficulty in working them out of the Sardonyx with his unassisted eye, than in the execution of a small bas-relief in any other hard material.



Sacred Hawk. Garnet.



Sacred Animals. Green Jasper.

EGYPTIAN INTAGLI.

We cannot more appropriately enter upon the consideration of the engravings on the gems themselves, and of the various styles of art characterising their respective countries and ages, than by a notice of the Egyptian Scarabei, or as the Germans call them "Beetle-stones," which are without dispute the earliest monuments of the glyptic art in existence. The beetles themselves are cut out of Basalt, Carnelian, Agate, Lapis-lazuli, and other hard stones; but are quite as frequently made of a soft limestone³ resembling chalk, or of a vitrified clay. Though the figure of the insect is often very well formed, yet they are not equal to the Etruscan in this respect; there is also a difference in shape which distinguishes the scarabs of each nation from one another. The back of the wing-cases in the Egyptian beetle is *flat*, whilst in the Etruscan there is usually a raised ridge running along their junction. The harder stones appear to have been *filed*

³ In fact the largest proportion will be found to be cut out of Steatite and a calcareous schist of different colours, blue, green, dark, and white. Some are found in coloured glass, but these are among the rarest. Very few of the earliest

scarabs or tablets are formed out of the harder kinds of gems: the scarabs in *these* are probably almost all of the time of the Ptolemies, when the Greek processes of engraving had been introduced into Egypt.

into shape by means of a piece of emery, probably the "lima Thynica" of Mæcenas, in his lines—

"Nec quos Thynica lima perpolivit
Anellos nec Jaspidas lapillos."

The softer substances were probably fashioned into the beetles, and then engraved upon their bases with a splinter of flint.⁴ Herodotus speaks of the Ethiopian arrows as being headed with the stone "by means of which they engrave their signets," and of the use of an Ethiopian stone to make the first incision in the corpse preparatory to embalment. That this stone was flint, is abundantly proved by the arrow-heads found in Egypt, as well as on the plains of Marathon, where the warriors spoken of by Herodotus emptied their quivers.

But these Egyptian intagli are all extremely rude, and only attempt the representation of hieroglyphics⁵ until we arrive at the epoch of the Ptolemies, which has presented us with some splendid examples of Greco-Egyptian art, such as

⁴ Even the scarabs and tablets in porcelain all appear to have been cut by hand upon the material in its dry state, and then burnt and covered over by a blue or green vitrified glaze. Many of these small works are probably composed of a stone that would stand the fire, and admit of being glazed as well as the clay so often employed. This peculiarity of manufacture supplies a means of detecting the false Egyptian works in glazed clay, now so extensively manufactured in England, and exported to Alexandria for the benefit of travellers up the Nile.

⁵ These legends, when interpreted, are found to consist of the names of the kings, with their titles of "Be-

loved of Amon Ra;" "Beloved of Athor, the Lady of Lower Egypt;" "Son of the Sun;" "At peace through Truth," &c. Others bear figures of deities with invocations; as the Sacred Serpent and "Living Lord of the World;" a Hawk, "The Good God;" "Osiris the Living Lord;" "The Sun, Disposer of the Lower Country;" and others of the same nature, and which we shall see reappear in the intagli of Roman-Egyptian date. Others, again, have the names of private persons and their offices, as "The Bard of Thoth;" or qualities of the owner, as "Truth;" or good wishes, "A happy life;" "May your name endure and your being be renewed."

the famous front face of a monarch, very deeply cut on a brown Sard, one of the chiefest stars of the Herz Collection, and which brought at the sale the high price (for these days) of 40*l.* 10*s.*



Portrait of a Ptolemy : Græco-Egyptian. Dark Sard.

This magnificent intaglio is a portrait of one of the Ptolemies, probably the Fifth of that name, for the face is that of a young person. It is represented in the same manner as the well-known Bust of Memnon, the received mode of depicting their regal divinities ; but the life-like fidelity of the Grecian portraits is combined with admirable skill with the majestic repose distinguishing the conventional type of the Egyptian godhead. Its expression is absolutely marvellous, and to the attentive gaze produces the same effect as the original colossal statue. In the British Museum there is a large bust, with features much resembling this, of a prince of the same dynasty, admirably sculptured according to this established type of the Egyptian School. Another fine example is the Sacred Hawk of the Berlin Cabinet, a large intaglio sunk in flat relief, but with uncommon force and spirit ; and among the British Museum gems is another on Sard exactly similar, but of smaller dimensions. In the Webb Catalogue, No. 2, was a Sard, engraved with a priestess adoring Osiris and Isis, represented as terminal figures. This intaglio, from its precise correspondence with the type of some of the autonomous coins of Malta, was doubtless contemporary with their issue, and therefore be-

longing to this period. Among the Uzielli gems are two very interesting Camei of the Egyptian School, but perhaps to be assigned to the times of Roman domination. One, a bust of Cleopatra, given in exact accordance with the prescribed type of the Queen, as seen on the oldest monuments, adorned with a profusion of small curls and many rows of necklaces, but worked out with extreme delicacy in the black layer of an Onyx in very flat relief; the other, a most curious representation of a fight between a hippopotamus and crocodile, executed with great truth to nature on an extremely small green and white stone.

When the Egyptian religion again revived under Hadrian some good intagli were executed in the ancient style, amongst which I have seen a cylinder in Plasma, with two rows of figures of deities engraved round it in a neat manner; but *this* brings us down nearly to the date of the Alexandrian class of Abraxas gems, to be hereafter more fully discussed. Although we have already remarked that many of the early scarabei used for signets are formed of a soft calcareous stone, or of a vitrified clay, yet we find many, especially of the larger kind, sculptured in Basalt, one of the hardest stones known. The lines of hieroglyphics, usually covering the flat surface of the bases of these scarabs, form by the rudeness of their execution a striking contrast to the perfect finish of the beetle-figure itself. They usually present a rough irregular outline, as if scratched into the surface of the stone by the point of some harder substance, the management of which was somewhat difficult to the hand of the engraver. The interior therefore of the figures and the lines are extremely uneven and ill-defined, very different from the neat finish of similar works executed under the Greek and Roman rulers of that country. The same remark applies to the hieroglyphics cut on the larger monuments, which from their

broken outline appear rather to have been hammered into the stone than cut out by a sharp instrument. The smaller engravings, I have little doubt, were scratched in with a piece of emery; the execution of the larger as well as the mode in which such immense masses of the hardest rocks were worked with such facility, will doubtless ever remain a mystery. For there is no doubt that the sculptors used only bronze chisels, which indeed are often discovered among the débris of their work; and that too for cutting granite and basalt, which now spoil the best steel instruments after a few strokes. Sir G. Wilkinson supposes that the workman used emery powder laid upon the part to be cut, and drove it into the stone with his soft chisel, by which process the powder itself formed a continually renewed edge to the tool, capable of subduing the most impenetrable substances. I do not know whether this be a mere theory, or if the experiment has been actually tried. It rather seems to me that some means must have been known of softening the stone to a certain extent, and *this*, together with an unbounded supply of forced labour, affords the only satisfactory solution of the difficulty.

Cicognetti, a Roman architect, who erected an altar in Cardinal Tosti's chapel in S. Maria Maggiore, the upper part of which was decorated with small columns of red Porphyry, informed me that the only way now known of cutting that stone is to steep it for several weeks in urine, and that even then it was worked with the greatest difficulty. It occupied the French workmen with the best modern tools the space of six weeks to cut a small groove around the base of the obelisk of Luxor, before removing it from its pedestal. And yet, besides these Egyptian relics so profusely covered with sculptures, huge columns, as well as statues and bas-reliefs of Porphyry, continued to be made in great profusion by the Romans quite to the close of the Empire. Magnificent

examples of this still remain in the tombs of the Empress Helena, and of her grand-daughter Constantia, sculptured from enormous blocks of that stone, and adorned with busts and groups in alto-relievo, the mere repolishing and restoration of which, on their removal to the museum of the Vatican, occupied several workmen for the space of seven years.



Signet of Sabaco II.

GREEK, ETRUSCAN, AND SARDINIAN.

These classes of intagli are treated of here under the same head, because it is as difficult to distinguish those belonging to the archaic period of Greek art from the Etruscan, as it is to decide the long-agitated question, whether the majority of painted vases are of Greek or Etruscan origin.* There is one remarkable peculiarity in these intagli, that no middle class of works presents itself between the extremely rude designs almost entirely executed by the drill, and engravings of the nicest finish in low relief, almost entirely scratched into the stone with the diamond point. While the first class offer caricatures of men and animals, the favourite subjects being

* Pythagoras is said by Hermippus to have been the son of Mnesarchus, a gem-engraver and an Etruscan according to Aristotle. This shows the high antiquity of the art among

the Etruscans, and that it had already constituted a distinct profession at this very remote period, nearly six centuries before our era.

figures throwing the discus, fauns with amphoræ, cows with sucking calves, or the latter alone ; the second gives us subjects from the Greek mythology, especially scenes from Homer and the Tragedians, among which the stories of Philoctetes and Bellerophon occur with remarkable frequency. The usual finish to all these designs is a border, in most cases simply milled like the edge of a coin, but sometimes very carefully worked in the pattern, called the *guilloche*,⁷ resem-



Di-drachm of Sybaris.

bling a wide-linked chain, or a loosely-twisted cable. From this striking contrast between the style of the two classes of gems, and as no traces are to be discovered of a transition from one to the other, a thing so observable in the various gradations of Roman art, it is certainly allowable to conjecture that the fine are of Greek, the barbarous of Etruscan manufacture. Their being found abundantly in the Etrurian

⁷ This guilloche border is often found enclosing the types upon the large flat didrachms of certain cities of Magna Grecia, as Metapontum and Sybaris. The figure of the bull-headed river-god, the Achelous, on the former coins, and the long-horned ox *regardant*, resembling an antelope, upon the latter, are executed in a flat stiff manner, but highly finished, and very similar to the work on many of these gems, with which there can be no doubt they were coeval. This confirms my

opinion that the best of these intagli are not of Etruscan origin, but that the idea was taken from that people, and improved upon by the Greek colonists of the south of Italy. As the city of Sybaris was utterly destroyed B.C. 510, and never restored, all the extant coins must have been issued during the two centuries before that date ; and hence we can form a notion as to the actual epoch of the intagli corresponding with these in style and workmanship.

soil is no proof of their native origin, for in the flourishing times of the Etruscans before the ruin of their power by the Gallic invasion, they carried on an extensive commerce with the Grecian states.⁸ And it is a circumstance somewhat at variance with our notions of Greek pre-eminence in art in every age, that Etruria supplied even the Athenians with every kind of ornamental article in bronze, as vases, lamps, &c., which is proved by the lines of Critias, (Athenæus, i. 50):—

*Τυρσηνὴ δὲ κρατεῖ χρυσότυπος φιάλη
καὶ πᾶς χαλκὸς ὅτις κοσμεῖ δαμον ἐν τινὶ χρεῖα.*

“ Etruria bears the palm for gold-wrought bowls,
And all the bronze that decorates our dwellings.”

It was not until after the age of Alexander that the Greek works in bronze became celebrated. All the masterpieces of the early Athenian sculptors were executed in marble, wood, or ivory. The Etruscans were naturally led to perfection in this manufacture, like the Florentines of the Cinque-Cento period, from the inexhaustible supply of the metal which they derived from Monte-Catino, near Leghorn, still a source of great wealth to the company working the mine.

But to return to our gems. Those assigned above to the Greeks are usually the light amber-coloured Sardis, which seem always to have been a favourite with that people. Many of these gems have evidently been sawn off from scarabs, even in ancient times, for the purpose of being set in rings, when the wearing of the beetle-stones, had gone out of fashion as soon as the religious motive became obsolete which had made this figure so popular with the Egyptians

⁸ At the moment of the accession of Alexander the Great to the throne, a fleet of Tuscan pirates was plundering the sea-coast of Macedonia.

and their disciples, the Etruscans. For to all appearance they had derived from Egypt their entire religious system, as is shown by the existence of a sacerdotal caste, the institution of mysteries, and the extraordinary care lavished upon the construction and decoration of their sepulchres.

I have seen scarabs in all possible materials from emerald to amber, and glass pastes (the latter the rarest of all); but by far the greatest number are formed of the common red Carnelian, supplied by the beds of their torrents, and they are usually very much of the same size. Few will be found to exceed an inch in length, and in this particular they contrast strongly with the Egyptian, which vary from the colossal beetle of some feet across the back, to the tiny pendant no larger than a fly.

This is the proper place briefly to notice the manner in which they were worn as ornaments by their ancient owners. The earliest method was that of simply stringing them, intermixed with other beads, and thus wearing them as a necklace, the engraved base of the scarab serving at the same time the purpose of a signet. Sometimes, however, they seem to have been introduced into these necklaces merely as ornaments, as in the famous one found in Tuscany in 1852, and which merits a particular description. It is composed of a chain woven of the finest gold wire, $\frac{1}{4}$ inch in diameter, and 11 inches long; each end terminating in bands of scroll-work with loops attached. From this chain descend 32 others, $1\frac{1}{2}$ inch long, of a curb-pattern, the alternate links to the left and to the right forming a diamond-pattern. Between these chains, and attached to the broad chain, are 16 full-faced bearded heads of Bacchus. In the centre of each diamond formed by the smaller chains, are alternately 6 full-faced harpies in a seated posture, and 7 diota-shaped ornaments; between these comes another row of scalloped forms,

14 in number. At the point of each alternate diamond formed by the small chains are suspended scarabei of onyx and amber mounted in a border of fine wire-work ; the other points having full-faced harpies, the wings curving gracefully above the shoulders.

This unique specimen of ancient jewellery was sold for 160*l.*, by Sotheby and Wilkinson in 1856. At the same sale, the finest Etruscan ring known, once belonging to the Prince di Canino, and engraved in Micali's 'Atlas of Plates,' was also disposed of for the small sum of 27*l.* Subjoined is the accurate description of it given in the catalogue. "It is formed on each side of a lion, their heads facing, and the front paws of each supporting a border of fine grain-work, in which is set a scarabeus of Sardonyx, engraved with a lion, his head turned back to the left." But the usual mode of mounting the scarab, as a finger-ring, was the *swivel*, a wire, as a pivot, passing through the longitudinal perforation of the stone (the edge of which was generally protected by a gold rim), and then brought through holes in each end of a bar of gold ; or else of a broad flat band of plaited wire, and bent into a loop of sufficient size to admit the finger, which was usually the fore-finger of the left hand. For the sake of security, the ends of the loop were formed into small disks, touching each extremity of the scarabeus. This loop, or ring-shank, as it may be considered, was treated in a great variety of fashions, and sometimes was made extremely ornamental. One that I have seen terminated in ram's heads, the pivot entering the mouth of each ; in another, the shank was formed as a serpent, the head of which was one of the supporting points, and the tail, tied into a knot, the other. Occasionally, the form of the shank was varied by bending the bar upon itself, so as to form a bow in the middle of its length ; the ends were then beaten to a point, which,

being twisted inwards, passed into the opposite holes of the stone, and thus formed a handle to the signet. This last manner of mounting the scarabeus was often used by the Egyptians, the shank being made of every kind of metal: it was also the common setting of the Phœnician stones of this form. These last are found abundantly in Sardinia. An extensive collection of them, from the cemeteries of Tharros, a Phœnician colony, was brought to London, by the Commandante Barbetti, in 1857, and afterwards sold at Christie and Manson's. These differed from the other classes of beetle-stones, both in the material—the greatest part of them being made of a dark-green Jasper, instead of Carnelian—and also in the style of the intagli engraved upon them; which closely resembled, in their treatment, the engravings on the best executed Persian cylinders, and were, in many cases, very neatly finished, certainly superior to the majority of the Etruscan class. The cutting of the figures was deep and carefully finished, although rather stiff, which latter character seems to be inseparable from all the productions of Oriental art; but some of the animals engraved upon them, especially the antelopes, displayed an extraordinary degree of spirit and freedom of execution.

Beetles, in coloured marble, and of considerable bulk, may be assigned (as their Roman style points out) to the revival of the Egyptian religion in the days of Hadrian. Early scarabs of that nation also occur with Gnostic devices engraved upon their bases, but the disparity of work in the beetles, and in the intagli upon them, proves the latter to have been an addition of the times of incipient barbarism. We may conclude this subject, by noticing a very rare peculiarity of some early Etruscan scarabei, where the back of the beetle is formed into a full front mask, apparently of the same date as the rest of the composition. Of this un-

accountable variation only two instances have come to my knowledge.⁹



Scarab with mask.

A curious kind of natural signet was used by the Athenians of the time of Aristophanes, the invention of which he jocosely ascribes to the subtle genius of the misogynist Euripides. As it was found that the wives were able to get themselves a fac-simile of their husband's signet for half a drachma, and thus to open, without fear of detection, all the stores sealed up by their lords, Euripides had taught the latter to seal the wax or clay securing the doors with bits of worm-eaten wood, *θριπηδεστα σφραγίδια*, (Thesmoph. 425). The curious windings and intricate curves traced on the surface of the wood by the "fairies' coach-maker," were quite beyond all

⁹ I have lately seen two additional and very extraordinary examples of this ornament to the scarabeus. The first was a large one in black and white Agate, the beetle itself formed with astonishing truth to nature, and the cameo-mask cut out of the white stratum of the stone upon the lower part of the wing-cases of the insect. I extract the description of it from the M.-S. catalogue:—"No. 171. Scarabeus. Jupiter, nude, darting the thunderbolt with the left hand; in the field a bust of Rhea with a crown of towers. The back of the scarab has been cut in relief,

and forms a bare head, of which the chin and beard consist of the lower body and of the wings of an insect. The figure of Jupiter has a foreign character, somewhat in the Phœnician style. Onyx." The second, and I believe an unique example, is an Egyptian scarab of vitrified clay, the base filled with well-formed hieroglyphics, and the back adorned with a large full-faced mask. It is very possible that these cameo-heads are the additions to the original stone, of a later but still antique period.

imitation, and thus supplied a signet that could not be counterfeited. Caylus gives an intaglio, the design a mere pattern of wavy lines curiously entwined, which he takes, and probably with reason, for an imitation of one of these natural seals.

ASSYRIAN AND PERSIAN CYLINDERS.

These are composed of different species of hard stone, Jasper, and Calcedony for the greatest part, but also of Carnelian, Agate, Loadstone, and Lapis-lazuli. They are of a cylindrical form,¹⁰ usually from one to two inches in length, and half as much in thickness, with a large hole passing through their length, for a string, and in this manner were worn tied round the wrist as a bracelet. This custom accounts for their hardly ever being found, with metal mountings, among Assyrian remains; the few that *do* occur, set in massy gold swivel-rings, prove, by the hieroglyphical engravings they bear, that they were used by Egyptians during the time that country was subject to the Persian rule. The subjects they usually present are sacrifices or combats between a man and a monstrous beast, probably typifying the contest of the Good and Evil Principles, the fundamental doctrine of the Persian religion. The following are types of frequent occurrence upon these cylinders.¹ Two figures, half-bull half-man, fighting with two lions: between each group are cuneiform inscriptions, arranged in vertical lines. Four human figures: beneath the second of them is a plant, between the third and fourth an animal, under which are placed three balls. A figure, in a long robe, holding at arm's length, by their horns, two antelopes.² Four

¹⁰ Some are barrel-shaped, others have the sides slightly concave.

Collection.

² This is a very common type on

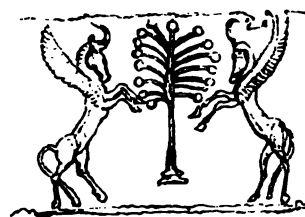
¹ All in the Mertens-Schaafhausen both seals and cylinders.

FIRST PERIOD :—ASSYRIAN CYLINDERS.

No. 6 inscribed with Phenician characters.



1. Captives.



1 a.



2



3. Triumph of king.



4



5. Astarte.



6.



7.

figures: one with bull's feet and tail (the prototype of the modern devil), is fighting with a man; the third, with hands raised, appears praying to the fourth, who stands motionless. Two men, one of whom has his hands raised: between the two is a tree; the other figure holds a sceptre; on the other side are three vertical lines of cuneiform letters. Two tall figures: a shorter one and two lines of cuneiform letters between them. Two figures standing erect, a plant and a staff between them: two lines of characters, mixed with animals, on the other side. Hieroglyphics entirely surrounding the cylinder, which is probably of Egypto-Persian date.

Layard divides cylinders into four classes—the Early and Lower Assyrian, the purely Babylonian, and the Persian. The Early Assyrian are usually of Serpentine, rudely engraved, and agreeing, in their subjects and style, with the most ancient bas-reliefs of Nimroud, such as the king in his chariot, discharging his arrows at the lion or wild bull; warriors in battle; the king or priest adoring the emblem of the deity; the eagle-headed god; winged bulls and lions; all accompanied by the common Assyrian symbols, the sun, moon, seven stars, the sacred tree, winged globe, and the wedge. Next in date are the Lower Assyrian, of the time of Sargon (Shalmaneser) and his successors. These are found in Agate, Jasper, Quartz, and Syenite, and other hard stones.³

³ This proves that the discovery of the process of cutting intagli upon the harder gems, known technically as "Hard Stones," is due to the Assyrian engravers of the early times of Nineveh, for the contemporary Egyptian signets are, perhaps without exception, merely cut upon such soft materials as Steaschists, or else upon metal, like those Royal Seals still preserved in gold. This is confirmed by the impression of the signet of Sabaco II., stamped on the same clay seal as that of Sennacherib; the former being evidently produced from an engraving cut on metal, the latter from a gem-intaglio.

SECOND PERIOD :—PURE BABYLONIAN.



1.



1 a. Athor.



2. Hercules.



3. Dagon.



4. Mithras, Athor, Bel.



5.



6.

That ascribed to Sennacherib is of Amazon-stone ; the intaglio being of the finest and most minute execution. The usual subjects of this class are the various gods and their worshippers ; thus, one (5) presents the figure of Astarte, backed by ten stars, the crescent over her head and a seated dog in front ; the worshipper is a female, behind whom is a tree and an antelope rampant.

The purely Babylonian are more common in European collections than the two former classes. For these Hæmatite, or rather Loadstone, is the favourite material, but Agates and Jaspers also occur. They bear the sacred figures, but are distinguished by legends in the Babylonian cuneiform character, containing the name of the owner and his patron god. Many of these exhibit excellent workmanship : one (2) in green Jasper—the Assyrian Hercules wrestling with a buffalo, and a horned human figure, having bull's legs, with a lion—is remarkable for the depth of the intaglio and the spirit of the design.

The latest of all, the Persian, are found in all the varieties of hard stones, Onyx, Calcedony, Crystal, Carnelian, &c. They often bear legends in the Achæmenian cuneiform : thus the signet of Darius, of green Calcedony, now in the British Museum, represents him in his car, accompanied by his name and patronymic. Another is engraved with the name of a certain Arsaces, the chamberlain. The Persian work is easily recognised by the draperies of the figures gathered up into narrow folds, as in the sculptures of the Achæmenian dynasty, a peculiarity never found on pure Assyrian or Babylonian monuments. Another mark of distinction is the crown worn by the royal personage, the figure of Ormuzd, now first introduced, and the fantastic monsters, agreeing in design with those of Persepolis. A cylinder of Crystal belonging to this period, representing Ormuzd raised aloft by two human-

headed winged bulls above an oval containing the royal portrait, is a work of extraordinary delicacy and minuteness.

Cylinders went out of use on the Macedonian conquest, and do not reappear under either the Arsacidæ or the Sassanians. A few, Assyrian in character, are inscribed with Semitic letters resembling the Phenician. They belong to various periods, from the time of the lower Assyrian dynasty to the Persian occupation of Babylonia. To the first Layard assigns one (6) with two human-headed bulls raising the emblem of the deity above the sacred tree, flanked by a priest bearing a goat and by the worshipper, behind whom is the legend, placed vertically. Of Persian date is another (3), the king contending with a bull and griffin; above him soars Ormuzd. The legend, in four lines, reads, "the seal of —" a name and patronymic undeciphered.

These cylinders are found in great abundance among the ruins of all ancient Assyrian cities, verifying the assertion of Herodotus, that every man of that nation carried a signet of his own. As for their style of work, it is generally very rude, the figures seeming to have been ground out of the solid surface by rubbing and filing with a piece of emery; they are also often much worn and defaced by use, so as to be almost unintelligible. Very few indeed display any finish of execution; and such, especially the beautiful one in Sapphirine (before mentioned under "*Calcedony*"), I am disposed to assign to the skill of some Greek engraver in the service of the later kings of Persia. Their court was an asylum for all adventurers of the Hellenic race, just as that of the Great Mogul was in the 17th century for Italian jewellers and architects, and as that of the Sultan is for Frank pretenders at the present day.

The impression of these signets, when required for use, was taken by rolling them over a lump of tempered clay, laid

THIRD PERIOD:—PERSIAN.

No. 3 with a legend in Phenician characters.



1.



2.



3.

upon the object to be secured by the seal; and this is the source of the comparison in Job, where “the heavens are turned as clay to the seal,” by which he poetically likens the concave vault, studded with the constellations, represented to his mind by numerous fanciful figures, to the surface of the clay spread out in a hollow plain adorned with the mythological devices impressed upon it by the revolution of the cylinder. Some stones of this form we have already noticed as evidently dating from Roman times, like that in Plasma previously described, but they are very uncommon, and merely due to the superstitious revival of an ancient usage.

Whenever signets are mentioned in the Old Testament, it is always as being borne on the hand, and never on the finger. Thus, in Gen. xxxviii. 18, Tamar demands the seal and the

twisted cord (*Chotam* and *Phetil*), usually rendered "ring," "signet," or "bracelet." Again, Pharaoh takes the signet off his own hand and puts it upon that of Joseph. "The signet upon my right hand" (Jer. xxii. 24); and "Zorobabel, even he was as a signet on the right hand" (Eccus. xlix. 11), with many other similar allusions, all go to prove the same thing. Thus (2 Kings i. 10) the young Amalekite brings to David, as the ensigns of royalty, the diadem and the bracelet taken from the corpse of Saul, apparently because the latter contained the royal signet, the only mode of authenticating the edicts of the sovereign. In the list of the articles contained in the treasury of the Acropolis, engraved on marble about the time of the Peloponnesian War, and published in Chandler (Part II., No. iv., 2), are enumerated "two glass signets of various colours, set in gold, and having gold chains to them." Pliny also expressly asserts (xxxiii. 4) that "the use of finger-rings was of no very great antiquity;" although we find signets mentioned in the most ancient of all historical records. On a painted vase, figured by Visconti (*Opere Varie*, ii. 1), Jupiter appears seated in the heavens, holding his eagle-topped sceptre, and wearing on his wrist a large oval gem, apparently intended for a scarabeus, threaded upon a very fine line; a manner of wearing a stone of so convex a form much more convenient than the later fashion of setting it in a swivel-ring, and where, by having the engraved face next to the skin of the arm, it was much less exposed to injury than when borne upon the finger. The very large relative diameter of the perforation through the axis of the Babylonian cylinders, proves conclusively that they were intended for the reception of a thick cord, such as might be fastened round the arm without inconvenience, and which, if dyed of a bright colour, might also serve as an ornamental bracelet. Thus we find that the

Amethyst lynx of the sorceress Nico (which I strongly suspect was an Oriental cylinder), is strung upon a fleece of purple lamb's wool, when dedicated to Venus. That the Babylonian cylinders were rarely mounted in metal is evident from the extreme rarity of any that retain traces of such mounting amongst the hundreds continually brought to this country. I have noticed the almost unique instances that have come under my notice, as being mounted in gold-swivels in the Egyptian manner; and one of Herz's still retained the bronze pin or axis rusted away into the perforation. Had the custom of having them thus mounted been prevalent in Assyria, they would be discovered retaining their swivels, at least those made of the baser metals, quite as frequently as the Egyptian scarabei. Again, all such gems, either Egyptian or Etruscan, originally intended to revolve on a metal wire, are bored with a very fine hole; whereas the cylinders, even when of the smallest size and less than one inch in length, have so large a perforation as to reduce them almost to the form of the section of a tube; so that, unless the substance passed through this cavity were of a soft and yielding nature, they would have been extremely liable to split when used. The later Persian conical seals were probably worn in the same manner. Their flat and broad bases were adapted to sit firmly upon the wrist, and the convex part would form an ornament after the manner of the embossed disk, invariably appearing as the centre of the bracelets worn by the ancient Assyrian kings. The later Persians adopted the shape of the signet-stones of their Macedonian rulers; but even here retained their preference for the conical form, for these Sassanian ring-stones are almost invariably cut en cabochon, and with a degree of convexity rarely met with in those of European origin.

HIGH PRIEST'S BREAST-PLATE.

Here some notice may be taken of the breast-plate, or *Rationale*, worn by the Jewish High Priest; the earliest instance on record of the art of the gem-engraver. The first idea of it was doubtless taken from the vitrified tablets worn on their breasts by the Egyptian priests when engaged in their sacred functions, and which represent a deity in a shrine, surrounded by various emblems. We are also told by Ælian (xiv. 34), that the chief-priest of the Egyptians, who was also the supreme judge, wore round his neck an image of truth, made of Lapis-lazuli (Sapphirus); and it is a curious coincidence, that the above-named tablets are formed of a vitrified composition of a bright blue colour.

The ancient tradition of the Greeks, as to the origin of the Jewish nation, recorded by Diodorus Siculus, is, that they were a colony despatched from Egypt into Syria, at the same time that Danaus set out for Greece; and the striking analogy of their customs and laws with those of Egypt, as given by this author, strongly supports this tradition. The Jews themselves appear, from their own chronicles, always to have retained a strong attachment to the parent state. In all their political distresses, when menaced by their Syrian neighbours, the idea of a return to Egypt continually suggests itself to their minds, although strongly opposed by the sacerdotal caste. The famous letter of Areius, king of the Lacedæmonians, to the High Priest Onias (Josephus, xii. 5), in which he speaks of the common descent of both nations from Abraham! though probably a Jewish forgery, yet sufficiently proves the general belief, at that early period, of the original unity of the races, as colonists from the same mother country. Diodorus (i. 24) speaks of the Egyptian Hercules travelling all over the world, before erecting the

celebrated Pillars. Again, the Grecian Hercules, the progenitor of the Spartan royal house, was a native of Argos, the first Egyptian colony planted in Europe. From the same tradition of their common origin, the Spartans style the Jews "their brethren," in their letter of congratulation to Simon Maccabæus. Intimate relations seem to have been kept up, until a late period, between Jerusalem and Sparta; it was a noble Spartan, Eurycles, who became the minister of Herod the Great, and by his pernicious counsels brought about the ruin of his family.

The gems set in the breast-plate were engraved with the names of the tribes, probably in hieroglyphics, and arranged thus, if we follow the Vulgate (which also coincides with Josephus), an authority to be respected in this point, the version having been made at a time—the 5th century—when the knowledge of precious stones, and of their ancient names, still flourished.

1st Row.—Sardius, red. Topazion, yellowish green. Smaragdus, bright green.

2nd Row.—Carbunculus, dark red. Sapphirus, dark blue. Jaspis, dark green.

3rd Row.—Ligurius, or Lyncurium, orange. Achates (perhaps), black and white. Amethyst, purple.

4th Row.—Chrysolithus, bright yellow. Onyx, blue and black. Beryl, light green.

Our version gives the same stones in different order, but substitutes a Diamond for the Chrysolite, a most absurd exchange, as it would baffle all engravers, both of ancient and modern times, to cut an inscription upon this invincible gem; add to which, one of a size to match the rest of the stones in the breast-plate, would have been equal in magnitude to the Koh-i-Noor. Josephus says, that the stones were conspicuous for their largeness and beauty, and of incomparable value. The

names of the tribes were engraved in the "national character," but the breast-plate seen by him must have been only a copy by tradition of the first one made by order of Moses. Being a square of a span, *i. e.*, of 8 inches each side, and having the gems arranged in four rows of three each, it follows that each gem, with its setting, occupied a space of $2\frac{2}{3}$ inches long by 2 deep; and that, therefore, they were cut in the form of long ovals, or rather ellipses, like the cartouches containing the proper names in hieroglyphic inscriptions. It will sound incredible to the ear of the uninitiated, but every one conversant with the nature of gems will admit, that these most venerable productions of the glyptic art must still be in existence. No lapse of time produces any sensible effect upon these monuments, as is testified by the numerous seals, even in a softer material, vitrified clay, bearing the name of Thothmes III., the contemporary of Moses himself. Their intrinsic value also, as the finest gems that could be procured by the zeal of a race trafficking all over the world, must have rendered them objects of care to all the conquerors into whose hands they fell; and though removed from their original arrangement, and re-set in various ornaments, they must always have ranked amongst the most precious state-jewels of the captor of the Holy City. This doubtless was the cause that the breast-plate belonging to the first Temple is not mentioned in the list of the sacred articles sent back by Cyrus to Jerusalem; the rest of the consecrated vessels and ornaments appear to have been easily identified as having been deposited, as trophies, at the time of their capture, in the various temples of Babylon. The breast-plate in use after the Captivity, when worn by the High Priest, shot forth, according to Josephus, brilliant rays of fire, that manifested the immediate presence of the Deity. He, however, prudently adds, that this miraculous property had become

extinct, in consequence of the impiety of the nation, 200 years before the time at which he was writing.

This invaluable trophy was carried to Rome, together with the other spoils of the Temple. Of the subsequent fate of these treasures there are two opposite accounts; one, that they were conveyed by Genseric, after his sack of Rome, to Carthage, but that the ship containing them was lost on the voyage; the other, and the more probable one, that they had been transferred, long before that time, to Constantinople, and had been deposited by Justinian in the sacristy of Santa Sophia. Hence there is a chance of the gems at least emerging from oblivion, at no distant day, when the dark recesses of the Sultan's treasury shall be rummaged by the Russian heir of the "sick man," whilst he—

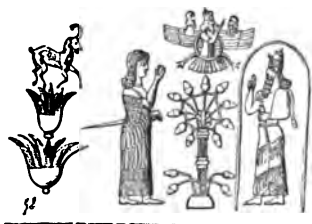
"Jam circum loculos et claves lætus ovansque
Currit."

"Joyous the long-expected wealth to seize,
Bustles about the money-chests and keys."

What a day of rejoicing, both to archæologists and to the religious world, will the identification of one of these sacred monuments occasion; a contingency by no means to be thought chimerical in an age which has witnessed the resuscitation of Sennacherib's signet, of his drinking cup, and of his wife's portrait.



Assyrian Seal.



Signet of Sennacherib: Amazon-stone.



Assyrian Seal.

SASSANIAN SEALS.

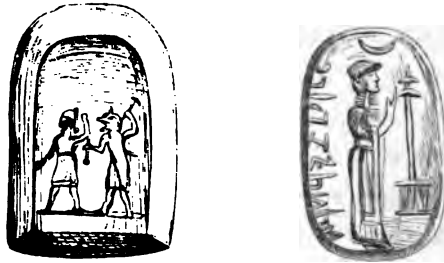
The consideration of the Babylonian cylinders naturally introduces the subject of the Sassanian seals, or stamps, still

found in large numbers about Bassora and Bagdad, which gradually superseded that most ancient form of the Oriental signet. They are termed Sassanian, from the circumstance of their having come into general use under the revived dynasty of the ancient Achæmenian race, commencing with Ardeschir in the 3rd, and closing with Yezdigerd III. in the 7th century of our era—sovereigns styled Sassanidæ, from Saasaan, the Roman mode of spelling Shaahshaan, "King of Kings," the title in all times assumed by the Persian monarchs, and not, as is absurdly repeated, a family name derived from an imaginary ancestor Sasan.

These seals are conical blocks of the same kinds of stone as those the cylinders are made of, Calcedony and Agate being by far the most usual material, having a hole drilled through the apex for the purpose of suspension round the neck or wrist. Sometimes they are of a spherical shape, often with flattened sides, and perforated through the diameter; with about a third of the circumference ground down so as to present a flattened tablet for the reception of the intaglio. It will be noticed, on examination of a collection of these stamps, that the earliest among them, on which the designs are often cut in a very neat but very stiff and archaic style, are generally in the form of cones with angular sides. These are assigned to the date of the Assyrian and first Persian monarchy, before the conquest of Alexander. A fanciful antiquary may be inclined to suggest that the form of the cone was adopted as being the universally received symbol of the solar ray. Thus we find the conical stone of Emesa, of which Heliogabalus was the priest, occurring on the coins of that emperor, with the legend "*Sacerdos dei Solis Elagabalus*;" and the Egyptian obelisk has always been interpreted as a representation of the rays of that luminary. The spherical stamps, on the contrary, are exclusively of Sassanian date, and many of

them doubtless belong to the centuries immediately preceding the Mohammedan conquest of Persia. The most interesting of the early conical seals that I have ever seen bears a figure of Mercury, identified by his caduceus and talaria, but closely draped, and wearing a Phrygian bonnet, a singular Oriental rendering of the representation of a Hellenic deity. The stone is a very fine Sapphirine Calcedony, and the form of the cone itself octangular. But the great majority of the intagli seen upon the tablets or bases of these cones and spheres are of an utterly rude character, and evidently cut by means of a very coarse wheel, all the lines being thick, and the design entirely executed by their repetition, assisted occasionally by a blunt-pointed drill. No traces are visible of the use of the diamond-point, or of that high polish which is so marked a peculiarity of the Greek and Roman intaglio. I subjoin a list of the most usual types occurring upon them, first premising that the whole-length figures or busts of royal personages form a large proportion of the designs to be seen upon the bases of these stamps. A priest praying before an altar; a priest sacrificing at a fire-altar; a winged figure walking, and holding a plant in his hand; a winged quadruped, with human head, a plant in front, a star above; a bird, with human head and scorpion's tail; a lion, with scorpion's nippers and a serpent's tail, behind him a tree, above, Capricorn and a star; a gazelle, surrounded by a legend; bust of a horned animal supported on two large wings; a priest in front of an altar, behind him an inscription—on one side of the cone are engraved two figures, one of them with a bull's head, engaged in combat. The fantastic animals which will be found represented on more than half the number of these seals, are executed, for the most part, in a truly Chinese style of drawing. And there is a most wonderful similarity between the mode of the design of some

of these delineations of various beasts, and those of the same subjects upon the Gallic and British coins. For instance, a Carnelian stamp, engraved with a horse, a wild boar in the field beneath (in the collection of Mr. Litchfield of Cambridge), from its exact identity with the well-known potin coins of the Channel Islands, caused me for a long time to flatter myself with having made the discovery of a unique intaglio, the work of a Gallic gem-engraver as yet uninfluenced by Roman instruction in his art.



Persian Seal with Phenician legend. Calcedony.

We however frequently meet with Sassanian gems, cut in the form of ring-stones, and these sometimes of very good workmanship. They appear to be, invariably, portraits of the reigning prince, or of members of his family, and occur in considerable numbers; often on the Garnet, and of very fair execution, especially if we consider the lateness of their date, yet still, in most instances, do they betray traces of the heavy and coarse hand of the workman, which so strongly mark this class of intagli. Although gems of the Sassanian dynasty are plentiful enough, yet works that can be certainly ascribed to the times of the Arsacidæ, their immediate predecessors, are extremely rare; still more so are such as belong to the first race of Persian kings, who ruled over all Asia prior to the Macedonian conquest: and the small number of examples of these highly interesting classes that

have come under my own notice shall be described farther on. A few indeed among the indisputable Sassanian portraits are of such good and careful execution, that, in spite of the Pehlevi legends they bear, and which authenticate their date, we have some difficulty in regarding them as the productions of that late epoch, the 3rd century, when that race regained the throne of Persia; so great is their superiority to any works executed by contemporary gem-engravers of the Roman school. But it is true, that with the restoration of the ancient religion and dynasty under Ardeschir the Blacksmith, A.D. 226, all the arts appear to have simultaneously revived in Persia; the coinage of this patriot prince and that of his next successors, being vastly superior in all respects, as regards both design and execution, to that of the last Parthian sovereigns.

These ring-stones are usually gems with a very convex surface, probably the reason of the so frequent choice of the carbuncle for this purpose. Even when Sardis and Nicoli have been employed, they are generally cut into a pointed shape, with a small flat surface left to receive the intaglio and the inscription. These legends are always in the Pehlevi character, which only appears after the restoration of the ancient Persian monarchy at the period just mentioned; the Arsacidæ or Parthian kings having invariably employed, on their monuments, the Greek language, and probably Greek artists, as is shown by the legends and style of their medals; probably from a wish to be regarded as the legitimate successors of the Macedonian line. The early Pehlevi is nearly identical with the rabbinical Hebrew character, of which it was, to all appearance, the parent; but upon the coins of the later kings it assumes the form of the Pehlevi used in the religious writings of the modern Parsees. Some of the legends on this class of coins, like one set of the trilingual

inscriptions on the rock-sculptures at Nakschi-Roustam, are written in the Persepolitan alphabet; but all the gems that I have examined present the same shaped letters as those used upon the medals of the commencement of the series; and particularly agreeing in form with the characters of the inscriptions at Kirmanshah in commemoration of Sapor I. and Bahran, given by De Sacy in his '*Antiquités de la Perse.*' This eminent Orientalist, who was the first to decipher this previously inexplicable alphabet, confesses that, as regards our gems, though the letters on them bear a striking analogy with those of the medals and of the inscriptions, he had been able to make out but one of them, which he attributes to the language in which they are couched being the Pehlevi dialect, and not the Zend. This single one he reads: "Artaschetran-Rami-Minochetri-Rami," "Son of Artaxerxes, of the divine race." The medals of Sapor, for instance, read thus: "Mazdiesn beh Shapouhr malcan malca Iran Minochetri." "The servant of Ormuzd, the excellent Sapor, king of kings of Iran, of the divine race." And this style will serve as a guide in the attempt to elucidate the titles figuring around the gem-portraits.



Narses. Garnet.

Firouz Shapouhri (Sapor II.).
Sardonyx.

Varanes. Nicolo, perforated.

The numerous variations in the forms of the same letter appear to arise merely from the carelessness of the die-sinker in not expressing their angular parts, but turning them off

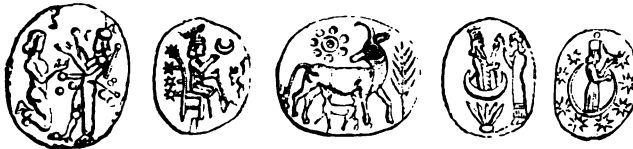
into a curve in order to save trouble, exactly as one would do for expedition's sake in writing them with a pen. Similarly, in the gems, some of the inscriptions are cut in the neatest and clearest character that could be produced by the tool, and such will usually be found on the Garnets and other precious stones, in which a superior artist of the times has displayed his skill, whilst, on the coarse Calcedony seals, the signets of the lower sort, the same letters offer a series of seemingly arbitrary curves, with hardly any distinction of shape between them. It seems, however, to me, that, on a careful comparison of the inscriptions, even of those most carefully finished, a marked difference will be observed between them, whether due, as in those of Nakschi-Roustam, to their being expressed in two different dialects, or from the introduction of combined letters or "nexus" into some, and not into others.⁴ I shall now particularise the most important gems of this interesting class that I myself have had an opportunity of examining; and the inscriptions on which I have, in some instances, been able to decipher in a satisfactory manner. The list must be headed by the magnificent Amethyst, one of the chief treasures of the Devonshire Collection; a profile portrait wearing the tiara, a work of extraordinary boldness, though of little finish; the head of Sapor I., surrounded by an inscription, in two lines, of large and well-formed Pehlevi letters. This stone now forms the centre ornament of the comb, in the parure of antique gems, lately combined and set with such exquisite taste by Mr. Hancock, the Duke's jeweller. A Nicolo, now in the Fould

⁴ This series closes with the rude intagli, of extreme rarity, with a design similar to some of those above enumerated in the field, and an ill-cut Cuphic legend running around the sloping sides of the stone. I have a Nicolo of this class, engraved with two figures joining hands, two stars between them; and the British Museum Collection has a curious Calcedony, hereafter noticed.

Collection, engraved with the bust of a queen, executed in the manner of the best Roman portraits, and surrounded by a legend in very delicately-formed and minute letters. Amongst the Mertens-Schaaflhausen Persian stones, No. 52 is a well-executed bust of Sapor II. on Sard, with the legend "Pirouzi . . . Shapouhri." "the Victorious Sapor." But a still more interesting portrait of the same king, though of inferior workmanship, is that on a Carbuncle in my own collection, where his bust is supported on four wings, the usual Oriental symbol of divinity, and between the sun and moon ; at once recalling to our recollection the arrogant style assumed by this same prince in his Epistle to Constantius, given by Ammian (xvii. 5), "*Rex regum Sapor, particeps siderum, frater Solis et Lunæ, Constantio Cæsari, fratri meo, salutem plurimam dico.*" The inscription, very neatly cut, reads distinctly "Pirouz Shahpouhri ;" an interesting corroboration of a circumstance noted by Ammian in his most graphic account of the siege of Amida, conducted by Sapor in person, that the Persian host, investing that city, chaunted throughout the night the name of Sapor, with the titles of "Pyroses" and "Saansaan," that is to say, "Victor," and "King of Kings." A beautiful Guarnaccino, in the Pulskey Collection, has the legend unfortunately defective, but apparently reading—"Narsehi Sha ;" the portrait is much like that of the king of that name, and of very fine work. It is not wonderful that both the medals and gems of the second Sapor should so abound, for the duration of his reign and life were commensurate, extending to seventy-two years. Although the portraits on the medals are invariably depicted with the tiara, a balloon-shaped turban rising out of a mural crown, from which depend long and streaming ribbons, yet on the gems they usually appear bare-headed. I have met with but two instances on which the tiara occurs : the famous Devonshire Amethyst, and

a front face, apparently of Chosroes, of late work, on Calcedony. The gem figured by De Sacy has also the tiara. It is singular that these princes should appear so often on the gems without this distinctive badge of sovereignty, especially as the engravers always seem to have had much difficulty in rendering the curly locks, the cherished distinction of the Achæmenian race, which they for the most part attempt to represent by a series of drill-holes set close together.

I have dwelt at some length upon this part of my subject, as being one, so far as my researches extend, hitherto untouched; and yet containing a most valuable series of portraits, authenticated by their inscriptions, of those very princes who make so prominent a figure in the history of the later Roman empire. In the point of view of art they have an additional value from the fact, that they supply the only intagli, with the rarest exceptions, capable of serving as historical evidences, that are to be met with subsequent to the age of Constantine.



Assyrian and Persian Seals in Agate and Calcedony.

EARLY PERSIAN GEMS.

Two indubitable intagli of the date of the early Persian monarchy have been examined by me with the greatest interest. One, on striated Onyx, represented a Persian king seated on a throne supported by sphinxes, and engraved in a good but very archaic style. This most valuable gem had been nearly ruined by the folly of the owner in having its surface polished down in order to remove a superficial frac-

ture, thereby destroying the original outline of the figure; otherwise, this intaglio would have ranked amongst the most interesting known. The other was the bust of a Persian, upon a Sard, of ordinary work similar to the better-executed Sassanian gems, but in the field of the design was engraved a ram's head and a doubled cross, precisely as on the coins of Salamis in Cyprus, thus indubitably marking the portrait as that of a Persian satrap of that island, at some period before the age of Alexander, after whose time the Persian dominion over the Greek islands had entirely ceased. I have also seen a Roman imperial portrait, a laureated bust, somewhat resembling Caracalla, engraved on Nicolo, accompanied by a Pehlevi legend; a unique instance and very difficult of explanation. It will be observed on the examination of many of these Oriental portraits, that a larger proportion, especially of the best executed, are found on Garnet and Guarnacino than is the case with the intagli of the Roman school, in which good work occurring upon a Garnet is quite the exception to the general rule. In fact, as long as the palmy days of the art lasted, the Sard was preferred to all other stones by both Greek and Italian engravers; the first employing by choice the bright yellow variety, the inhabitants of Magna Grecia and the Etruscans usually contenting themselves with the common European Carnelian, whilst the Romans were supplied by their Indian commerce with the various splendid coloured sorts of the stone, some emulating the Carbuncle, others the deep orange of the Jacinth. A full-length portrait of a Parthian king,⁵ on a large Oriental Onyx of the finest quality, the three strata of the stone being perfect in colour and distinctness, brings to our mind an interesting letter of Pliny the Younger when

⁵ Now in the possession of Mr. Uzielli.

Governor of Bithynia, addressed to the Emperor Trajan, in which he mentions a similar intaglio. "Apuleius, the officer stationed at Nicomedia, has written to me that a person named Callidromus having been forcibly detained by the bakers Maximus and Dionysius, to whom he had hired himself, had fled for refuge to your statue; and when brought before the magistrates made the following declaration: That he had been slave formerly to Laberius Maximus, and been taken prisoner by Susagus in Mœsia, and thence sent as a present by Decebalus to Pacorus, king of Parthia, in whose service he had remained many years, but afterwards had made his escape and got to Nicomedia. He was brought before me, and, persisting in the same story, I judged that he ought to be sent to you for examination. This I have been somewhat delayed in doing in consequence of having instituted a search for a gem engraved with the portrait of Pacorus and the ensigns of royalty which he was accustomed to wear, which gem he had informed me had been stolen from him. For I was anxious to send it to you, if it could possibly be found, at the same time with the man himself, as I *have* actually done with this piece of ore which he asserts that he brought with him from a Parthian mine. It is sealed with my own signet, the impression of which is a four-horse car."

This letter appears to give a satisfactory explanation of the great number of Persian seals occurring engraved with royal portraits, and often of such rude work and coarse materials that they could only have belonged to the numerous officials and menials of the royal household. Thus an almost equally numerous class, engraved with figures of priests and fire-altars, were probably the private signets of the Magi, a powerful and extensive body which flourished down to the fall of the monarchy in the 7th century. It

is a curious fact, that but a few years before the utter ruin of their empire and religion, and at the time when Mahomet delivered his famous prophecy of their coming fall in the chapter of the Koran entitled "The Persians," which begins thus: "The Persians have conquered the Greeks in the uttermost parts of the earth; but before seven years," &c., at this very time Chosroes had restored the ancient limits of the Persian rule under Xerxes, and was master of all Egypt, Asia, and the north of Africa. Similarly, under Theodosius the Great, the Roman Empire had attained its extreme extent, only to crumble into fragments in the feeble hands of his sons. For after their reign the Western Emperors were but the puppets of the Frank or Herulian general, who was only deterred by the shame of his barbarian origin from mounting the imperial throne. One point more in this letter may be observed: "the piece of ore" thought worthy of being forwarded for Trajan's inspection. This was probably a specimen from a silver mine, of which metal the Persians must have possessed an abundance. Vast quantities are still supplied by Thibet, then tributary to them. Both the Parthian and Sassanian currency consisted exclusively of silver; coins of gold or copper of either dynasty are almost unknown. Procopius, with the laughable vanity of a Byzantine historian, asserts that the Sassanian kings did not dare to coin gold, that being the exclusive privilege of the Roman emperors; a somewhat unsatisfactory solution of the difficulty when we consider the supreme contempt justly entertained by Chosroes for Justinian, his superstition, and his power.⁶ In all times, however, the Orientals

⁶ He subjoins, however, the true reason, "that even if the Persian kings coined gold, none of the nations with whom they had commercial intercourse would take it:"

meaning thereby that the Roman gold was the universal currency of the world, which is perfectly correct.

have preferred silver for a circulating medium ; all gold coin that gets into their hands being immediately melted for conversion into ornaments, or else into ingots for the purpose of concealment.



satrap of Salamis. Sard.

INDIAN ENGRAVED GEMS.

It is universally acknowledged that the inhabitants of the Indian Peninsula derived the use of coined money from the Greek sovereigns of Bactria, and that the types of the earliest Hindoo pieces show evident traces of being imitations—of increasing rudeness, as more remote in date—of the Græco-Bactrian currency. And this is equally true of those few engraved gems, the types on which prove to a certainty their Indian origin, sometimes found, but only in small numbers, deposited, together with other jewels and gold coin, in the Buddhist topes or relic-shrines of Cabul. It is certainly to be reckoned among the numerous unaccountable inconsistencies of the Hindoo race, that, although the earliest of mankind to attain mechanical perfection and facility in the sculpture of the hardest stones, as Granite, Jade, Agates, &c., into ornamental vessels and other representations, and also in the shaping and polishing of all gems (except the Diamond), with which they supplied the ancient world to an extent of which a very limited conception can now be formed, yet that despite all these inducements of ability and of abundance of materials, they seem never

to have attempted until a very late period, and then but rarely, to imitate their Persian neighbours in embodying on the precious stone the miniature forms of those numerous and often graceful deities whose larger statues they daily reproduced in innumerable multitudes. Assuredly it was not the practical difficulties of this art that deterred them, for they executed with facility many operations which would tax the skill of the most expert lapidary of the present day, such as drilling fine holes with the greatest accuracy, not merely through beads of Onyx, but even of Sapphire and of Ruby; and this is a part of the work in hard stones much more difficult, and requiring greater precision and care, than the processes required in sinking an intaglio, at least in its simplest forms, or in cutting a figure in relief upon the surface. Their extraordinary skill in working one of the hardest substances known, Jade, is beautifully shown in the large tortoise found on the banks of the river Jumna near Allahabad, and now in the British Museum, which for fidelity to nature and exquisite finish is worthy to be the work of a Grecian artist. Small figures of the Sacred Bull 'couchant,' perforated through their length for the purpose of beads, are often found in company with the other relics here described. Miniature idols, also of Indian work, and formed in the hardest stones, are not uncommon. The most extraordinary production of the kind that ever came in my way was a figure of Buddha seated in his shrine, surrounded by various accessories, the whole cut with marvellous skill out of a huge Agate of red and white strata, a most valuable specimen of the stone for brightness of colour and for magnitude, being six inches in height and width and of nearly the same thickness.

Although one powerful motive for the engraving of intagli was wanting amongst them, hinted at in the words of Pliny,

"Non signat adhuc Oriens literis contenta solis," the non-employment of the signet, but merely of the writer's subscription to authenticate documents,—yet still we should have expected that, as soon as acquainted with this art from intercourse with their neighbours (and, to some extent, masters) the Persians, whose universal use of engraved gems is noticed by Herodotus, they would have attempted to enhance the native beauty of their gems, though intended merely as personal ornaments, by adorning their surface with figures either in intaglio, or, as was the first step in the Egyptian branch of this art, with sculptures in relief. For it is sufficiently plain that with the latter people the scarab was worn as an ornament or amulet on the necklace long before its base was engraved upon for the purpose of impressing the seal; and the same observation holds good for their pupils the Etruscans. Be this as it may, it is certain that no gems have yet appeared engraved with purely Hindoo types, or as having been discovered in provinces of India lying beyond the sphere of the influence of the Greco-Bactriac civilization.

Wilson figures in his 'Antiquities of Afghanistan' a small number of intagli found in the deposits already mentioned. Of these, one is evidently a portrait belonging to the Greek period, two are common Roman gems, as was to be expected in sites where so many aurei of the Lower Empire are constantly discovered, whilst the rest are certainly works of the natives of the country where they were brought to light. The most interesting of these is a Sard engraved with the bust of a female, holding a flower, prettily executed, with a legend underneath in Sanscrit letters of the 7th century, giving the owner's name, "Kusuma Dasasya," "The Slave of the Flower." Another is the portrait of a prince with a pendant of four large pearls in his ear, and wearing a neck-

lace, inscribed "Ajita Varmma," "Varma the Victorious," in Sanscrit letters of the 9th century. This was the name of a king of Cashmere of that period. Another Sard found at Hidda bears a regal head in the same style, but without a legend. The same tope also furnished two gold rings set with Carnelians, one a head in relief, apparently that of Buddha, the other an intaglio bust. A large Carnelian intaglio gives two seated figures in Hindoo dresses playing musical instruments, supposed by Wilson to be intended for Krishna and Radama.⁷ As far as a judgment can be formed from the plate, the execution of this group is extremely neat and careful, although rather stiff. Under the head of "Barbarian Camei" a notice will be found of some Indian works of the kind that have been brought under my own examination. Although the Greek colonists of Bactria formed a powerful and extensive state that flourished for more than three centuries, and which also possessed great wealth, as may be inferred from the large quantities of the currency of their princes still in existence, it is very singular that they should have left behind them so few engraved gems, considering the universal use of them in their parent country during the same space of time. We should have expected to meet with here a numerous class of gems engraved with figures of Indian deities, but assimilated to the Greek treatment of such subjects, exactly after the manner of the same figures upon the reverses of their coins. That the artistic skill to produce gems worthy of their mother-country was not wanting, amongst the Indo-Macedonians of at least the first century of the kingdom, plainly appears from the excellence of the execution of the portraits

⁷ More probably the Sign Gemini, so represented by the Hindoo astrologers.

on the coins issued during that period by the monarchs bearing purely Greek names.



Persian. Serpentine.

MODERN ORIENTAL INTAGLI.

Before we quit the subject of Oriental intagli, the Mahometan, or Mediæval and Modern, deserve a slight notice, for two reasons:—as being the immediate successors of the class just described, and as articles the use of which kept alive the processes of the art of gem-engraving in the East during those centuries in which it had been entirely forgotten in Europe.

The earliest Cuphic stones are an extremely interesting class. The gems themselves are still of the ancient shape, being, no doubt, importations from India ready prepared for engraving as in Roman times. The legends upon them, in the elegant vertical Cuphic letter, are so arranged as to form certain figures, as a cross or a T. The letters are very fine, often apparently executed with the diamond-point, such is their precision and accuracy, and entirely dissimilar to the rude wheel-cut legends of the Sassanians. They consist of long legends in the Cuphic, or square Arabic character, in the earliest class, and in the flowing and elegant Persian on those of more recent execution. The Cuphic went out of

fashion in the 13th century, and thus the form of the letters gives us a clue to the age of the signets themselves. The mechanical execution of most of these legends is of the most perfect description; nothing can exceed the freedom and elegance of the curves and the depth and boldness of the engraving, frequently also occurring on the hardest gems, for I have seen admirable instances upon the Ruby and the Sapphire.

Pliny remarks, "*Non signat adhuc Oriens, literis contenta solis*;" "Eastern nations make no use of seals, being satisfied with the mere subscription of the name." This fact struck him with peculiar force, seeing the universal use of seals in his time throughout the whole civilized world as the sole mode of authenticating a document. But the Oriental practice still continues unchanged, for the stone or metal signet inscribed with the owner's name and titles, is not impressed upon wax, but inked over, and thus applied to the paper after the manner of a copper-plate. By the term "*Oriens*" in this passage India alone is signified, for the use of seals intended to leave their prints on a soft substance, clay or wax, originated with the early civilization of the Assyrian Empire.

These legends, beautiful as they are to the eye of the unlearned, are the very plague of all Oriental scholars, who are often pestered by their acquaintances to decipher for them some "engraving of a signet" which, when the words are extricated from the calligraphic flourishes in which they are entwined, contain some such profound idea as this: "What is destined will surely come to pass;" or a religious axiom, as, "Ali is the purest of Men;" or perhaps the name and titles of some Captain Smith, a revenue-collector in some Indian province. Gems also are to be seen with legends in the Rabbinical Hebrew character, some of considerable

antiquity; they usually contain nothing but the name and father's name of the owner.

A most curious if not unique example of this very rare class is a Jacinth, *en cabochon*, now in the hands of Mr. Eastwood, the device on which appears intended for a vine-leaf, and a modius with three wheat-ears, surrounded by the legend in distinct Hebrew letters, "Helulu Bar Coasah," "Helel, son of Coasah." This stone was found deposited with other engraved gems of Sassanian date, and the style of the work upon it is certainly of that period—the 5th or 6th century—and therefore furnishes one of the very earliest instances known of the use of the modern Hebrew character. Another, but much more recent stone, an octagonal Carnelian, set in a very singularly-formed Oriental silver ring,



Hebrew Jacinth of the Sassanian period.

bore in Rabbinical characters the legend "Issachar Ha Cohen," "Issachar the Priest." Huge gold rings, adorned with filigree work and surmounted by a small temple, with Hebrew inscriptions on the interior of the shank, sometimes are seen in collections, and puzzle the beholders as to their use, being much too large for the finger. They were made for the use of the Synagogue, where they serve in the celebration of the marriage ceremony, being placed on the finger of the couple at a certain portion of the rites. As may be supposed, they are often most exquisite specimens of the skill of the jeweller.



Etruscan. Sard



Archaic Greek. Calcedony

GREEK AND ROMAN GLYPTIC ART.

Although it is impossible to lay down any exact rules for distinguishing the works of the Greek and Roman period from each other without any exception, yet there are certain general principles which will be found to obtain universally, and which, with a little practical experience, will enable us to separate the productions of either school.

By the term Greek intagli we mean those engraved before the time of the Roman Empire, even though the best of those of a later date were the work of Greek artists, as we still see by their names added to the finest existing engravings; yet the imperial epoch has a peculiar style of its own, the nature of which we shall hereafter endeavour to define.

The earliest Greek intagli are undoubtedly those of very low relief but of the most minute finish, and principally executed with the diamond-point, whilst the design is usually enclosed within the so-called Etruscan border. On account of this border, these intagli were formerly all assigned to the Etruscan school, an opinion at present quite abandoned. The subjects which they present are single figures of deities or heroes, animals (which are of very frequent occurrence), and groups illustrative of events taken from Homer and the Tragedians, amongst which, for some unknown reason, the

story of Philoctetes seems to have been a very favourite one with the artists of the period.⁸ One Sard, of the Herz Collection, of the most exquisite finish, represents the hero in the act of removing the bow and arrows of Hercules from beneath the altar where they had been concealed; whilst a huge serpent twining round it, is about to sting him in the foot. Another, of still finer work, represents him reposing under a rock, and with a wing driving away the flies from his mortifying foot; Ulysses is stealing up in the background to purloin the bow and quiver suspended over his head. Both these designs are enclosed within very elaborate engraved borders. Of Homeric subjects the best I have met with is one representing Priam offering to Achilles the ransom for Hector's corpse, also from the same collection. This design is executed in delicate lines upon the surface of the gem, scarcely any portion of it being composed of sunken surfaces; in fact, the figures may be said rather to be etched upon than engraved *in* the Sard. Yet they have a degree of force and expression, although of minute size, hardly to be equalled by any work of this description. This style of intaglio is extremely rare: I only remember one other instance of it, a laureated bust, probably of a poet, in the Florentine Cabinet. Another excellent gem that has come in my way with a Homeric subject is a group of the four horses of Achilles lamenting over the corpse of Patroclus stretched out naked upon a bier in the foreground. This group also is in extremely flat relief. One of the hindmost horses is expressed by the most delicate shadowing, so as to be hardly visible at the first glance; but the whole com-

⁸ If a conjecture may be allowed, this story may have been selected as illustrative of the divine vengeance on a violated promise: for Philoctetes was stung by the serpent when taking up the bow and quiver of Hercules from their hiding-place, which he had sworn to his dying lord never to reveal to the Greeks.

represented by a vast number of fine lines, all distinct from each other and never crossing, but every one perfectly well defined. Any ornaments that may be introduced, such as the wreaths on the heads of the deities, the diadems of the princes, the ear-rings, necklaces, hair-cauls, or fillets, of the female busts, are always rendered with the most scrupulous fidelity. In fact, the artist appears to have been in love with his work, and to have, as it were, kept it in hand as long as possible, nor to have relinquished it before every portion of the accessories had received the last degree of finish. These intagli will also be found to be generally engraved upon the fine yellow kind of Sard; yet I have in my own collection an exquisite head of Proserpine upon one of a ruby-colour; and a magnificent head of a Syrian king, on Amethyst, is one of the glories of the Pulsky Cabinet. Of this period also we find excellent works on Jacinth, a stone recommended to the Greek engraver, in spite of the extreme difficulty of working it, by its extraordinary lustre when worn on the finger.

Much of the Greek style survives in the intagli of the time of Augustus, some of whose portraits are executed altogether in that manner, as is especially observable in the treatment of the hair. This peculiarity also shows itself in his coinage, in which the greatest diversity exists, some being as rude as the old consular pieces, others, on the contrary, quite of the Grecian type. However, the Roman manner soon became fixed, and exhibits the following characteristics. There is a great aiming at effect and a neglect of details; the intaglio is sunk as deep as possible, and relief of colour is sought for by cutting through the various layers of the Sardonyx and the Nicolo; the hair is expressed by broad strokes, in masses, and undefined as in painting; everything, in short, is sacrificed to the face, which, though

usually effective, has a kind of stiffness of expression never to be observed in good Greek portraits. In the female heads, more care is bestowed upon the execution of the hair and its arrangement according to the distinctive fashion of the day; but the work falls very far short of the careful finish of the same part of the design in the preceding period of art. The portraits appear now as busts with a portion of drapery on the shoulders, while the Greek present nothing but the head and neck. The figures are more or less draped, while those of the emperors are represented in full armour. The compositions seldom exceed two figures; they usually represent some action of ordinary life—war, hunting, agriculture, or some well-known event of mythology, or some religious ceremony. We no longer find designs taken from the Tragedians or Epic Poets, as in the earlier Greek gems; and so invariable is this rule, that all historical or poetical events represented on Roman intagli afford in themselves grounds for ascribing the work to some artist of the Revival; a judgment which will generally be verified and confirmed by a minute examination of the stone. The stone often has been hollowed out to a great depth by the drill; and the necessary finish of detail, such as the features, the hair, and the drapery, put in afterwards with the diamond-point. Much of the latest work, however, appears to have been entirely executed by means of the wheel, an instrument which, as before observed, there is reason to believe came into use at Rome about the time of Domitian: certain it is, that the rude intagli of the Lower Empire show no traces of the other instruments which so strongly mark the flourishing epoch of the art. The better class of Roman intagli display an extreme degree of polish in the interior of the work, and we have already noticed the theory of the experienced Lippert, that the tool used by the ancients polished

as well as cut the intaglio by one and the same operation, thus accounting for the perfect internal lustre of many gems of rude unfinished work. In modern times this polish is the effect of a tedious operation, by rubbing diamond-powder with a lead point into the interior of the engraving, and therefore is only to be seen in works of the best artists, executed in imitation of the antique. For this very reason, the constant appearance of this high polish on every variety of Roman work, up to a certain period, is a most singular fact, and must have been in some manner the result of the peculiar tool employed in cutting the intaglio, for it entirely vanishes in the rude talismanic engravings of the Lower Empire, which are evidently wheel-cut, as well as in the Sassanian gems engraved by the same means. In many heads, again, the hair, when intended to be represented as short and curly, is rendered by holes drilled close together, a mode of treatment common enough in Roman heads of Hercules. In Greek gems, on the contrary, every separate curl would have been minutely finished, and the hair composing each faithfully rendered by lines cut with the diamond-point. The same peculiarity is to be observed in busts in marble of the Roman school, in which, towards the end of the 2nd century, the hair and beard are simply represented in the same manner by holes drilled into the stone. This method of representing the hair is often found upon the later camei. Another great distinction between the Etruscan intagli and those of Archaic Greek work is the circumstance that the former represent most of the deities as winged, a manner borrowed from the Egyptians, but never found in the works of Grecian artists.

Certain portraits of Roman times occur very abundantly on gems—of Augustus and of Nero more especially; heads of the Flavian family are also frequent, as well as of M. Aure-

lius and L. Verus, although the modern copies of the two last are still more plentiful. Of a later date they are very rare, with the exception of Caracalla, of whom I have seen many rude portraits, probably worn by the military, whose favour he courted by all possible means, in pursuance of the last injunctions of his father. After this date they almost altogether disappear, their place being taken by gold coins of the reigning emperor, which it had become the fashion to wear in rings. I have, however, met with a good though stiff portrait of Aurelian; and some of Probus are mentioned as known. Strange to say, no more than one is described as now existing of Constantine, in spite of his long reign, and great popularity in the following centuries; but Lippert mentions a well-executed one of his eldest son, of the same name. In Stosch's Catalogue appears this *diademed* head of Constantine, upon Amethyst—the sole Roman figured on a gem with such an ornament. The Mertens-Schaafhausen Collection possesses a supposed bust of Julian on Carnelian,¹⁰ and a most interesting one (if genuine) of Mauricius, front-faced, and crowned, holding the orb, and inscribed DNMAVRITVS.P.P.A. It is a large Calcedony, $2 \times 1\frac{1}{2}$ inches in size, and said to have been dug up at Grafin, but the form of the letters in the legend make me suspect it to be a work of the 16th century. Under the head "Cross of Lotharius" will be found a detailed account of the signet of that Carlovingian emperor, the latest engraving on a gem of which I have been able to

¹⁰ This portrait is very uncertain; it does not wear the diadem, the invariable decoration of the imperial busts of that date. But among the portraits called "unknown," in the catalogue of the same collection, is a most interesting intaglio: the

heads of Gallienus and Salonina, facing each other, and with three wheat-ears over each. Between the busts is an altar supporting an eagle with spread wings, holding a wreath in his beak.

meet with any trace, and, indeed, one executed long after the date usually assigned for the utter extinction of the art in Europe. But still, as before remarked, portraits of even the 3rd century are of extreme rarity: the heterogeneous Herz Collection, the sole design of which was to get together the greatest possible variety of subjects, contained no portraits posterior to the times of Severus.



Caligula and his Sisters Sard



Antoninus Pius. Cameo. Emerald

After the revival of the art in Italy the works of the Cinque-Cento engravers are, as might be expected, close copies of the Roman style, but they are marked by a curious exaggeration, to be observed in all the productions of that age, as their bronzes, carvings, and majolica-painting. The intagli of the very earliest artists of this date (those who first appear as flourishing under the patronage of Lorenzo dei Medici) are easy to be recognised by their extreme stiffness and thoroughly mediæval character, exactly agreeing in their treatment with the contemporary portraits of the persons they represent. All that I have seen are, in fact, portraits worked out in very flat relief, and apparently with the diamond-point, in the antique manner, and on stones of considerable size. The head-dress and costume of the period is most scrupulously rendered, just as in a miniature by a painter of the Quattro-Cento. In short, nothing can be more

dissimilar to the flowing, exaggerated, and forcible style characterising the intagli of fifty years later, when endless practice and the study of the antique had freed the engraver's eye and hand from the trammels of Gothic conventionalism. These works of the second dawn of the art are excessively rare. Subjects from Roman history and from Ovid are very great favourites with this succeeding school: few intagli were however produced by them, compared with the abundance of camei, which, issuing from their ateliers, have flooded the cabinets of the world of amateurs. In the last century the taste for intagli revived, and many were executed equal to the best productions of ancient art; however, there is usually an undefinable expression of the period about them (in the treatment of the drapery more especially) which guides the experienced eye in distinguishing them from the antique. Besides this, such great artists as Natter and Pikler did not profess to be mere copiers of antiquity: they always signed their own works after they had acquired celebrity, and the latter had a peculiar style, differing widely from the antique, although of equal merit. Some, however, of the latest Roman engravers have taken the Greek school for their model; and I have seen works by Cerbara—for instance, a lion on Emerald in the Pulskey Cabinet; a head of Proserpine and a Diomede with the Palladium, camei by Girometti; surpassing, to my taste, any production of the artists of antiquity in this department.



Philosopher meditating upon the Immortality
of the Soul: Greek. Agate.



Sailor of Ulysses opening the Bag of Winds:
Etruscan. Sard.

I shall conclude with a few general observations upon the mechanical execution, the art, and the subjects, of the classes of gems treated of in the preceding chapter. A very marked distinction of Archaic Greek and Greco-Italian intaglio work is the constant use of the *méplat*, to use the French technical term, only to be expressed in English by a long periphrasis. It may be described as the sinking of the whole design into the gem, with all its various portions, in flat planes, differing but slightly in depth from each other, upon which the muscles of the body, the folds of the drapery, and the other accessories, were afterwards traced by the diamond-point. The impression from such an intaglio has its outline nearly as much elevated as its highest projections, yet without sacrificing any of its effectiveness; a peculiarity observable also in the coinage of the same epoch and regions. This flatness of the internal surfaces within the intaglio itself may be held as the surest mark of its genuine antiquity, being the necessary result of the instrument employed by the ancient engraver, by which, acting as a scraper, he could produce a flat surface to the bottom of the cavity he was sinking in the gem with less difficulty than a curved one. In the modern process, on the contrary, where the wheel is the sole means used, this is almost impossible, and semi-cylindrical or grooved hollows mark all the productions of this tool, even in gems intended to pass for antiques of the earliest times.

In these early gems it will be also observed that the design is invariably so arranged as to fill up the entire field of the surface, whether of the scarab or of the ring-stone. Hence the forced attitudes and violent exertions expressed by the figures of men or of beasts, which were purposely chosen by the artist in order to accommodate the flexure of the bodies to the elliptical form of the surface upon which he was engaged. But, in fact, in all antique works, one point, carefully

kept in view, was to leave unemployed as little as possible of the surface exhibiting the design of the artist. It may be laid down as a rule that, in all intagli of good times, and more especially in camei, the subject, be it a head, a single figure, or a group, is always so carried out as to engross, as nearly as possible, the whole surface of the stone, leaving but a narrow field or background, often little more than what was absolutely required for the hold of its metal setting. On the contrary, modern camei, the works of artists accustomed to admire and copy prints on paper, where a large field and background form an important portion of the whole, usually show a considerable space surrounding the design, the dimensions of which are, as it were, gathered up, and not extended and flattened out, as in the true antique. The same rule holds good likewise for their intagli. But whenever the ancient gem-engraver wished to display the full beauty of the material, as in the case of the Oriental Onyx or the Nicolo, he bevelled off the surface, so as to exhibit the brilliant contrast of the concentric layers, and thus contracted the field to the smallest limits capable of enclosing his intended composition. This is the reason why imperial portrait camei, especially when of large dimensions, are so generally surrounded by a wreath of oak or laurel boughs, between which and the head a very contracted field is left; the object evidently being to bring into play the various colours of the stone on as many points as possible. To the same purpose serves the line left to surround the design in the smaller camei. But to return to the works of the archaic school. These intagli—for camei they never attempted—or at least the greater part of them, whether cut upon scarabs or on ring-stones, are inclosed within the border already noticed under “Etruscan Scarabei.” These borders are *milled*, or formed of small strokes set close together; or

granulated, i. e. resembling a string of beads, whence the idea was taken ; or the *guilloche* ; the last only occurring upon the most highly-finished works on account of the extreme difficulty of its execution. The milled border, however, occasionally re-appears on Roman intagli of very late times, where it may readily be distinguished by its carelessness and irregularity, having been introduced as a mere unmeaning finish, whereas we can clearly perceive, from its mathematical accuracy in good Etruscan gems, that it was then regarded by the artist as an essential portion of his work. The most important of the Greco-Italian works will be found to occur upon a tricoloured Agate, i. e., a stone having a white and transparent between two dark and opaque stripes crossing its surface ; or the converse. The regularity and evenness of these bands constituted the value of the stone in the eyes of the ancient lapidary. From its various shades it does not display the work upon it so effectively as either a perfectly transparent or perfectly opaque stone ; yet the fact is indisputable that it was at that time accounted the gem par excellence for signets of the highest merit ; an employment confirmatory of the remark of Theophrastus already quoted as to the beauty and value of the Agate in his days.

The legends seen upon these archaic intagli, even when the characters are purely Greek, always give the names of the heroes they represent in a most barbarous and contracted form, as TVTE for Tydeus, AXVE for Achilles, &c. It may be confidently affirmed that no intaglio appears with a pure Greek inscription upon it until after the age of Alexander, when the first few letters of the owner's name are introduced, the earliest instance of which, to my knowledge, is an exquisitely finished and minute lion's head, on Sard, with Θ E below, the signet of some Theodorus.

The Etruscans and the contemporary Greco-Italians appear

never to have attempted heads, even of divinities, much less portraits of individuals, upon their signets. Such, indeed, are not met with upon gems before the ages when Greek art had attained to its full maturity. The most ancient intaglio head that has come under my notice is one of a nymph crowned with myrtle on a Jacinth, among the Mertens-Schaafhausen gems, and there styled a Sappho ; a work much in the Egyptian manner, and resembling the types of the earlier coins of the Egean islands. And there is nothing surprising in this, for, agreeably to the analogy of all other branches of pictorial art, the earliest gem-engravers, Greek or Greco-Italian, begun with representations of the various beasts to which, in those times of primitive nature, their thoughts were constantly directed, either as objects of utility, of amusement, or of terror. Thus, the ox, the stag, and the lion—so abundant upon these gems—may be safely accounted among the first productions of the newly-discovered art ; a conclusion also to be deduced from their extreme stiffness, yet careful finish. For rudeness and slovenliness of execution, except where owing to imperfect instruments—as in the purely Etruscan scarabs—marks the decline of a long practised art, where great demand has occasioned cheap and hurried production, not the cautious and laboured efforts of the first inventors of the process. This observation equally applies to the cognate art of coining ; the types of the earliest currency being invariably animals. It needs only to mention the tortoise of the drachms of Phidon and the lion and bull opposed of the staters of Cræsus.

The next step was the human figure at full length, representing mortals employed in the pursuits most immediately interesting the owner of the gem—agriculture, war, the chase. In the next stage came the heroes of former ages, but all depicted with the literal accuracy of daily life ; and, lastly, the

gods themselves, now represented and worshipped in the human form; for the most ancient Hellenic, or rather Pelasgic, deities were but symbols—rivers, trees, or stones. Such continued for centuries the rule for the productions of the glyptic art, long after it had reached a point of mechanical perfection never subsequently surpassed; for what later works, either in gems or medals, come up, in precision and delicacy of finish, to the better sort of Greco-Italian scarabs, or to the thin incuse didrachms of the same style and times? During this long period, and amongst the innumerable intagli it has bequeathed us, we never find an attempt made to engrave on a stone a bust or head, even of a deity, though statues had then become universal,¹ much less any portraits of individuals. It is only when all traces of the archaic manner have disappeared that the gems give us, first heads in profile of heroes, nymphs, and gods, and—the art having now attained to full perfection—regal portraits; the latter certainly not before the age of Alexander. Engraving such portraits upon gems, it may be confidently affirmed, was never thought of before the Macedonian princes set the example of putting their own heads upon their coinage instead of that of the tutelary god, the former universal rule. Even at this stage of the art portraits of private persons are utterly unknown. In fact, they do not appear, as far as my experience extends, before the later days of the Roman Republic. Heads given in full face begin with the latest Greek period, are by no means rare of Roman date, and gradually become the favourite style for what were intended as the most elaborate works of the Decline.

In their treatment of imperial portraits the Roman en-

¹ Two thousand bronze statues, or rather statuettes, are recorded as forming part of the plunder of Vol-
sinii, towards the close of the Etruscan power.

gravers displayed every variety of style, and evidently taxed their invention for novel modes of reproducing subjects which they were called upon to repeat so frequently for their patrons among the courtiers.² Hence we have such portraits—sometimes in low relief after the best Greek style, and often upon gems of great volume—like the Julia of Evodus, on an immense Beryl; an Augustus with the star, on an extraordinary Nicolo (Fould); and other well-known ornaments of the gem-cabinets of Europe. Or, again, they resorted, for the sake of exhibiting their marvellous skill, to the opposite extreme, engraving portraits of perfect accuracy and the highest finish on gems of almost microscopic size, such as a bust of Titus on a Prase $\frac{1}{4}$ inch high by $\frac{3}{16}$ wide; and another on red Jasper but slightly larger; both among the Mertens-Schaafhausen gems. Of these, the former is probably without an equal for spirit, fidelity, and minuteness. Again, we find intaglio heads of extreme depth of cutting given in full face, a style adopted by the artists in many of their most famous works, of which the Io, the Muse, and the Julius Cæsar, of Dioscorides may be quoted as unparalleled examples. From the extreme care bestowed upon the execution of these portraits in front face, and the larger dimensions of the gems—besides their choicer quality—on which they are engraved, a proof of their superior importance, it may be conjectured

² A favourite mode of representing the bust of the youthful Cæsar, or heir-apparent, was in the character of Mercury, with wings on the head, and the caduceus on the shoulder. Thus appear frequently Caligula, Nero, M. Aurelius, and Caracalla. The numerous portraits of Nero show, by the nascent beard appearing on almost all of them, that they were executed during the first bloom

of his popularity, the three first years of his reign, when a new golden age was confidently expected from the sway of the pupil of Seneca. They must all have been engraved before his 20th year, when, on the occasion of his first cutting off his beard, he established the festival Juvenalia. Of his portraits in more advanced life, but one (with the radiated crown) has ever come in my way.

that such was generally the form adopted for the heads on official signets; a theory supported by the almost exclusive employment of this style in the portraits cut on the precious stones of the Lower Empire. The large front-faced busts of the Provinces in extremely bold, though rudish, Roman work³ of the later period, were also designed for official signets, probably for the use of the Proconsul of the province,⁴ since it is difficult to imagine that any private person should have arrogated to himself so important a device for his private seal without risking ruin from the suspicious jealousy of the emperor. Can it be that these heads, whether of Emperors or of Provinces, when given in front face, have been all official signets, but those in profile worn by their subjects through friendship or adulation? The words of Pliny, assigning the entrée at the court of Claudius exclusively to persons privileged by the gift of a gold ring engraved with the emperor's portrait, go to establish the official use of such ornaments under the empire. Gems engraved with the features of an unpopular prince or favourite were doubtless broken to pieces upon his death or downfall; the gem-portraits sharing the fate of their colossal brethren in bronze and marble, "*descendunt statuæ restimque sequuntur.*" I have met with numerous instances of this "execution in effigy" done upon fine gems, as a Commodus—an important intaglio in red Jasper—surrounded by his titles, which has evidently been mutilated purposely; a Caligula, also with a legend; and the Caracalla of the British Museum Collection. In conclusion, to return to certain points slightly alluded to above, though of considerable importance in the distinguishing antique gems from modern imitations. Firstly, it is an invariable rule that

³ Of Africa I have seen two admirable examples, and both apparently from the same hand.

⁴ When Clodius Macer revolted against Nero he struck denarii at Carthage with the head of Africa.

all truly antique designs are marked by their extreme simplicity. Rarely does the composition include more than two figures, or, if others are introduced, they are treated as mere accessories, and only indicated by an outline. To this branch of art Horace's maxim can be strictly applied with but slight alteration—

“Nec quarta loqui persona laboret.”

Except in the archaic works of the Greeks and Greco-Italians, who, as we have seen, preferred the representations of violent action and muscular exertions, Repose is the characteristic of the productions of matured Hellenic and Italiote taste. Hence the best works of the most illustrious gem-artists are invariably single figures or heads, as will appear on the examination of the list of artists' names and works still extant. As a necessary consequence of this restriction nothing of the nature of a picture with perspective, background, and carefully-finished details of unimportant objects, is ever observed in truly antique gems, whether camei or intagli. Such a treatment of the design stamps the work at once, however ancient its aspect, as a production at best of the Renaissance, the artists of which had not emancipated themselves from the mediæval rules of art where all objects in the picture are considered of the same importance and made equally prominent.

Again, there is a marked soberness in the invention of the subjects themselves, or, rather, there is no *invention* at all in them. They are always literal transcripts of some event in mythology bearing a serious or mystical interpretation; some fact of Heroic history, that is, the religious history of their ancestors; or some business or diversion of everyday life. All these are rendered upon the stone according to certain strict and definite rules, and nothing fanciful is ever allowed to intrude. The whole design is carried out with the rigid

simplicity of the old tragedians, where one or two actors do and say everything for themselves. Such is the treatment of the events of the Epic Cycle, the favourite themes of the early Grecian and Italiote engravers: with the Roman period art, though in its fullest perfection, becomes altogether prosaic in the choice of its subjects. For gem-engraving, "Scalptura," being from the first ancillary to Sculpture, and ever taking its larger productions for its models—the Etruscan his terra-cotta gods and masks, the Greek his bronze or marble statues—the gem-artist never attempted anything in miniature the example of which had not previously been placed before his eyes on a larger scale. Another reason this for the simplicity of their compositions. Neither the one nor the other ever thought of representing events of contemporary or of actual history; an observation which applies invariably to Greek, and, with the rarest exceptions, to Roman works. Even in the latter the event was given in the most simple manner, as in Sylla's signet, "The Surrender of Jugurtha," and precisely as depicted on the reverses of the coinage of the times. Such scenes as the Battle of Issus, the Suicide of Lucretia, Scævola before King Porsenna, the Death of Cæsar, &c., compositions crowded with figures, grouped as in a modern painting, all in violent action, all which we so often see upon the large intagli and camei of the Cinque-Cento and later schools,—nothing whatever of this nature is ever met with on a really antique gem. Neither do we find scenes from Virgil or the "Metamorphoses," the favourite subjects of Italian artists in every department since the revival of art. All truly antique themes are ideas hallowed by long use and reverence, or, so to speak, the "scriptural subjects" of the age that embodied them upon the gem. No antique gems ever represent licentious scenes or attitudes. Even in the undraped figures the sex is slightly indicated

and nothing more. Such designs, on the contrary, are sufficiently plentiful on modern gems, and the great skill and labour which have been lavished by the best hands of the time upon such unworthy subjects prove the favour with which they were received. The number of antique intagli still preserved—the greater portion dating from the times of the Roman Empire—is perfectly incredible until a little reflection upon the causes of this abundance supplies a satisfactory explanation. For the space of three centuries they were being produced in countless thousands over the whole civilized world as articles, not merely of ornament, but subservient to the most important uses, authenticating all the transactions of commerce, and serving as a substitute for keys in daily life, when the locksmith's art was yet imperfect. Their material, utterly indestructible, sets at defiance time and the action of the elements; even fire can only discolour it. The stone whose beauty and art charmed the eye of Mithridates, of Cæsar, or of Mæcenas, preserves all its charms unimpaired for the gaze of the man of taste of this day. The barbarian or new convert who melted down the precious ring, bracelet, or vase, for the sake of its metal, cast away as worthless or as idolatrous the Sard or Onyx with which it was inlaid; the priceless work of art fell into the earth and securely slumbered within its protecting bosom until reviving civilization enabled the world again to appreciate its value. Amidst this profusion of ancient treasures the beginner must ever bear in mind one remark—that in the antique world, as in all times, mediocrity was the rule, first class works the exception; hence the vast majority of gems, whether Greek or Roman, though of the greatest historical importance, fall very short of perfection as works of art. They were an article produced by a trade, and, in most cases, with as much rapidity as possible, and made to sell.

Still, even in these, one cannot but admire the effect produced by a few bold and rapid touches of the master's hand. Hence a gem of very perfect work and good execution requires to be scrutinized with the utmost caution before its genuineness be pronounced indisputable, for the best engravers of the last three centuries naturally copied such antique models, and followed them with the utmost fidelity, *that* being the sole means by which they could obtain an adequate recompense for their labours from the high price commanded by the originals or the copies passing as such. Mediocre gems, being plentiful in the market and to be procured for a trifle, were thus left beyond the danger of forgery.



Caligula as Mercury. Sard.

STONE-RINGS.

Rings cut out of the solid stone were in common use among the Romans of antiquity, just as Carnelian rings are among their female descendants of the present day, who wear them now as a species of amulet to keep off sickness—a notion derived from the mediæval idea of the protective virtue of the Sard. These ancient rings were formed out of various substances, but most frequently of Calcedony, a tough and firm material. It is most probable that the first idea of these stone-rings was borrowed by the Romans from

the Persian conical and hemispherical seals in the same material. Some of these latter have their sides flattened and ornamented with divers patterns, and thus assume the form of a signet-ring, with an enormously massy shank, and very small opening, sufficient, however, to admit the little finger. And this theory of their origin is corroborated by the circumstance that all these Roman examples belong to the times of the Lower Empire, none being ever met with of an early date. Of these most collectors must have seen examples. Two very interesting ones, procured in France, came under my notice last summer (1858). Both were of precisely the same form, much resembling the Calcedony ring figured in Dr. Walsh's Gnostic gems, the shank being very stout and three-sided, and the head a long oval. One of them bore intaglio portraits of a man and woman facing each other, with letters and numerals; the other a bust of the bearded Bacchus, of excellent Roman work; and both intagli apparently from the same hand. An acquaintance of mine possessed another, found at Arles, made of Crystal, with a very thick cable-formed shank, and a small opening, evidently only meant for suspension, like the Sassanian stamps. It was engraved with the favourite type of a youth drinking from a bowl after the exercises of the gymnasium. In the Herz Collection was a very massy one in Calcedony, covered on all sides with Gnostic legends. I have also seen lately another, still more bulky, of green Jasper, but with a round shank, the head oval and engraved with a serpent twisted round a wand, surrounded by the usual legend. The head of a third, belonging to the same class, in mottled Jasper, once in my possession, represented Osiris in the sacred boat, above him the sun and moon, and the inscription $\text{IA}\omega$ underneath. Under the head of "Pastes" we have already noticed the numerous rings of coloured glass in imitation of Agate. But

the most curious thing of the kind that has ever come in my way was a ring of a material like red Amber, only elastic, so that when the shank, which had been divided, was pulled open, it immediately resumed its shape. This elasticity was no doubt due to the mode in which the substance, whatever it was, had been prepared. The ring was said to have been brought from Egypt, and certainly was the same in form as some Carnelian rings found on the fingers of mummies. But, even allowing it to be a modern forgery, the elasticity of the Amber remains a most curious fact. A large Amber cup, holding half a pint, has lately been discovered, deposited in a tumulus in Ireland, and from its size could hardly have been cut out of a single block of that substance. It has been ascertained by experiment that bits of Amber boiled in turpentine can be reduced to a paste, united, and moulded into any form desired; and this is supposed to have been the manner in which the vessel in question was manufactured. This fact may throw some light upon the strange story about malleable glass told by Petronius in his account of Trimalchio's Feast, and thus alluded to by Pliny:—"It is said that in the reign of Tiberius the art of tempering glass was discovered so as to make it flexible, but that the entire establishment of the workmen was exterminated (*abolitam*), lest the value of bronze, silver, and gold, should suffer diminution in consequence." It must be remembered that Pliny was born in the reign of Tiberius, and would hardly have thought this story worth inserting in his 'Natural History' had not its truth been very generally believed.

Oriental rings, exactly like the ancient in shape, and made of Carnelian, Calcedony, and Agate, with legends in Arabic upon the face, for the use of signets, are by no means uncommon in collections. They are of large size, being designed to be worn on the thumb of the right hand, in

order to be used in drawing the bowstring, which the Orientals pull with the bent thumb, catching it against the shank of the ring, and not with the two first fingers, as is the practice of English archers. I have seen finger-rings of ivory, even of the Egyptian period, their heads engraved with sphinxes, and figures of eyes, cut in low relief, as camei, and originally coloured. Of the Roman times they are quite common; the Mertens-Schaafhausen Collection alone contains the following, the description of which I extract from the Catalogue, as illustrative of the style of work, and the devices, to be found in reliques of this class:—

A ring with an aged head in high relief.

Do. with a Siren in high relief, with a human head covered with a helmet; armed with a lance and a buckler ornamented with a Medusa's head. (This is the Stymphalian Bird, the device of the Valeria family). Found near Castell in 1854.

A ring with CAES in relief.

Do. with AM in relief: found at Arles in 1853.

Do. with two interlaced triangles.

A large ring engraved with the monogram of Christ between A and Ω, with the legend ABPACAZ, also found at Arles.

FLEXIBLE GLASS.

I give Trimalchio's account of the invention of Flexible Glass at length; his appreciation and knowledge of art so forcibly reminds one of many a rich collector of the present day:—

“While Agamemnon was attentively examining this dish of Corinthian bronze, Trimalchio says, ‘I am the only person in the world who possess the real Corinthian.’ I was expecting that, with his usual absurdity, he was going to say, that he had his vessels imported direct from Corinth; but he

did still better. ‘Perhaps you ask why I alone have Corinthian bronzes? Because the brazier’s name of whom I buy them is Corinthus; now, pray, what else is Corinthian, but what Corinthus keeps. But, that you may not take me for a know-nothing, I understand quite well how Corinthian bronzes first came about. At the sack of Troy, Hannibal, a cunning fellow and a great rogue, heaped up all the gold, silver, and bronze statues into one great pile, and set fire to it. The metals mixed, and all ran together. From this mass the workmen took and made pots, dishes, and statues. So arose the Corinthian metal—one thing out of several, but neither this nor that. You will pardon what I am going to say. *I* prefer glass; others do not. If glasses were not so brittle, I would rather them than gold; as it is, they are of little value. Yet there was once an artist who made a glass bowl that would *not* break. He was admitted before the Emperor with his present: he then made Cæsar give it him back, and dashed it down on the pavement. The Emperor could not help being frightened almost out of his wits; but my man picks up the bowl from the ground, and lo! it was only bruised, just as a brass one would have been. He takes out a little hammer, and leisurely makes all right again. Having done this, he thought himself already in heaven, especially when the Emperor said to him, “Does any one else know of this mode of tempering glass?” Now see—as soon as he replied “No,” the Emperor ordered him to be beheaded; for if the invention had become public, we should look upon gold like so much clay. In plate I am quite a connoisseur: I have bowls that will hold some eight gallons, more or less. How Cassandra kills her children, and the boys lie there dead, that you would think it real! I have a flagon which Romulus bequeathed my late patron, on which is Dædalus shutting up Niobe inside the Trojan horse.

I have, too, the battles of Hermeros and Petrax (Hector and Patroclus) on a tankard, all massy plate; for I would take no money for my knowledge.’”



CAMEO-ENGRAVINGS.

The name Cameo has been derived by some from the Arabic *Camaa*, an amulet, for which purpose engraved gems were universally used in the Middle Ages. Camillo Leonardo, writing in 1502, speaks of “*gemmae chamainæ*”³ in the sense of camei, or gems engraved with figures in relief: this is the earliest instance of the use of the term that I have met with. He also mentions a stone called Kaman and Kakaman, a name which he derives from the Greek *Καυμα*, “heat,” as being found in hot and sulphureous places. It was white, striped with various colours, and often mixed with the Onyx, and derives all its virtue from the nature of the figures engraved upon it—a description which seems to support the

³ Were not *χαμαί* too Attic a word to have been used in the common parlance of the times of the Greek Exarchs, when the spoken Latin became naturally much intermixed with the language of their officials, one might be tempted to guess that *chamaina* meant nothing but a gem discovered in the ground of a garden, &c., by accident—the only mode by which the jewellers of that degenerate epoch could have been supplied.

derivation from the Arabic just mentioned. Among the numerous attempts to trace the etymology of this word, it is surprising that no one should have deduced it from *Chama*, the shell sometimes used for this kind of work; a theory which would have been favoured by the origin of the term *porcelain*, which comes by a similar process of transition, from the porcellana shell formerly used in the manufacture of the Italian Faenza ware. But if we consider the circumstance that as early as the time of Cellini the rustics around Rome called the Onyx stones that they used to pick up in their grounds by the name of *camei*, and that this word appears only to denote a colour, at least in its primary sense, as, for instance, paintings in *cameo* or *camaieu*—grey figures upon a white ground—we are probably justified in seeking an Italian origin for the term. The only light that I have been able to extract from Lessing's lengthy dissertation on the word, though he seems to consider it a corruption of "*gemma onychina*," is that "*cameo*" was considered by some writers to be the equivalent of the German "*Speckstein*," or *bacon-stone*, which homely substance, to the vulgar eye, the red layers of the *Sardonyx* greatly resemble. Hence, after all, as no better etymology has been suggested, the Gothic word "*ham*," in its *baconian* sense, may have acquired this more euphonious form in the Italian mouth, a transformation not so strange as that of our "*hopper*" into *zoppo*.⁶

The term applies only to minute bas-reliefs cut on a hard

⁶ After all, the Italian word may only be the rustic pronunciation of *gemmeus*, for it is often found in old writers spelt *gamahu*. The modern Romans continually interchange the *g* and *c*: thus *cancer* becomes *gran-cio*; *cammarus*, *gambro*; *chryso-prasus*, *grisopraso*; *chryseus*, *griseo*

and *grigio*, &c. Bede, speaking of *Jet*, describes it as *nigro-gemmeus*; and Valerian uses the term *annulus bigemmeus*: hence we may conjecture that *imago gemmea* would in Low Latin gradually assume this form.

stone or gem, or on an imitation of the same ; for the largest bas-reliefs upon a slab of Sardonyx would still be named a cameo, while the smallest on marble or alabaster still remains a bas-relief. The small heads, and even busts, in full relief, made out of gems, are not, properly speaking, camei, though often so called, but are rather portions of statuettes, the rest of the figure having been intended to be completed in the precious metals. The earliest mention of a ring-stone in relief occurs in Seneca, who, in a curious anecdote which he tells (*De Beneficiis*, iii. 26) concerning the informer Maro and a certain Paulus, speaks of the latter as having had on his finger on that occasion a portrait of Tiberius in relief upon a projecting gem, "Tiberii Cæsaris imaginem ectypam atque eminente gemma." This periphrasis would seem to prove that such a representation was not very common at the time, or else a technical term would have been used to express that particular kind of gem-engraving. Pliny also mentions a stone called *Morio*, probably from its mulberry colour, used for engravings in relief, "ad ectypas sculpturas faciendas ;" perhaps the dark Jacinth or the Guarnaccino, in which so many camei still remain. From a careful inspection of the most famous cabinets of France and Italy I have come to the conclusion that truly antique camei were usually of larger dimensions than are suited for ring-stones, and were almost exclusively designed to ornament armour dresses or plate. For if we examine attentively those early collections which were formed before the art of cameo-cutting had revived (which was not much before the middle of the 16th century), such as that of Florence, which contains many camei obtained by Lorenzo dei Medici himself and marked with his name, we shall find them to be all of large size and of a bold but rude style of work. The same remark also holds good for the oldest portion of the Paris Collection.

This rude but bold style is also invariably found in the camei enchased in mediæval jewellery and ecclesiastical plate, in which so many precious relics of this art have been preserved—thanks to the uneducated piety of their Gothic makers—such as that perfect mine of antique gems the silver-gilt shrine of the Three Kings of Cologne, which is known to be a work of the 11th century. The great rarity of small antique camei is also proved by the fact that they are seldom or never found, even those of the coarsest quality, in the miscellaneous jumble of stones of all kinds collected by the Roman peasants in turning over their vineyards—a remark to which there are fewer exceptions than even in the case of antique pastes already commented upon. Again, not even does the largest cabinet possess an antique ring set with a *fine* cameo, though, were they as abundant in ancient times as the present number of professed antiques would lead us to suppose, antique rings would present us with as many instances of set camei as they do of set intagli. But so far is this from being the case that the Florentine Cabinet, amongst its innumerable gems of all ages, only possesses *one* antique gold ring set with a cameo of even *fair* execution, and that so singular in its nature as to merit a detailed description. It has been evidently the ornament of some Roman sporting gentleman, who, as the poet sings, held his wife “a little higher than his horse,” for it is set with a cameo head of a lady, of tolerable work, in Garnet; and on the shoulders of the ring are intaglio busts of his two favourite steeds, also in Garnet, with their names cut in the gold on each side—AMOR and OSPIS. On the outside of the shank is the legend POMPHINICA, “Success to thee, Pomphius!” very neatly engraved on the gold. In all my own experience I have met with only two camei in antique rings, and, singularly enough, both represented birds—one a parrot,

very rudely cut upon an Onyx of many colours, the other a pigeon, tolerably executed, on the same kind of stone, perhaps of early Christian times: these were set in hollow gold rings, the genuine antiquity of which was beyond suspicion.⁷



Greek Cameo, found in Cabul. Sardonyx

The rarity of camei of the size of ring-stones in ancient times will appear less extraordinary when we reflect that the primary use of rings was for the purpose of signets, not of mere personal ornaments, and that very few even of the precious stones are left to us which have not had their value enhanced, to the eye of taste, by the engraving upon them. The artists of antiquity do not seem to have been able to execute small works of sufficient finish to have become favourite or fashionable decorations of the fingers. And *this* leads to the consideration of the mechanical means employed

⁷ In the Mertens-Schaafhausen Collection is a Jacinth cameo, an imperial bust, which was in a silver setting, apparently a circular brooch, at the time of its discovery on the breast of a skeleton in a tomb at Marsfeld near Mayence. The owner had probably been a German chief, for three large double-spiral ornaments of bronze wire covered his chest, having once been sewn on his tunic for ornament and

defence at the same time; and his arms were incased from wrist to elbow in spiral bracelets of the same material. It may here be noticed that the barbarian so often transfixed by the emperor, on the latest Roman coins, is usually represented with his arms covered by a series of parallel rings, probably this identical form of bracelet, which served the purpose of a gauntlet.

by the ancient cameo-cutters in the execution of their works. On minutely examining a really antique cameo the design will appear to have been cut out of the coloured layer by the repeated strokes of a tool of the nature of a chisel, which left a series of uneven surfaces, to be polished down more or less by a subsequent operation. The outline of the figure always fades away into the field of the stone, which often shows minute traces of the upper layer not completely cleared away from it; and the design is never undercut, as it often is in modern camei for the purpose of throwing it out more from the field. The ground itself is often left uneven and not completely cleared of the upper layer, having evidently been scraped down by means of a narrow cutting instrument, which could not be made to bear upon a large surface at one and the same operation. Hence these works, though extremely effective at a distance—the purpose for which they were intended by the engraver—appear rough, and, as it were, lumpy, on too close an inspection. This unevenness of the ground of the design has been pointed out by some writers as the unvarying test of antiquity in a cameo, but this is not exactly correct, as the same peculiarity is equally manifest in the works of the earliest artists of the Revival.

It may be observed that many antique camei are perforated through their diameter to admit a thread for the purpose of fastening them to the dress;⁸ and some are enclosed in a massy iron setting, evidently intended as ornaments for armour. This was the case with the finest cameo that ever came under my inspection, at Rome: a head of Jupiter Dodonæus, about six inches in circumference.⁹

⁸ But in most cases this perforation merely attests the Indian origin of the Sardonyx stones (Pliny), imported into Europe in the form of large beads, and subsequently flattened by the Greek or Roman gem-

engraver to the form most suitable to bring out the layers of the stone required by his design.

⁹ The owner demanded 2000 scudi, about 400*l.*, for this fine gem.

Another rule given for the distinguishing of antique camei, "that they were invariably worked out of the stone by means of the diamond point," is certainly true in itself; but yet all gems cut in this manner are not necessarily antique, as precisely the same mode of operation was followed by the early artists of the Italian school. Witness the large portrait of Queen Elizabeth cut upon a green and white Onyx, and now in the Kensington Museum; and a much earlier, and more admirable example, the oval cameo with the busts of Henry VIII. and his three children, now set in the Devonshire parure, a work of microscopic perfection and delicacy of touch. These later stones have usually a rim of the coloured layer, out of which the design is cut, left all round the edge of the cameo as a kind of border to the composition: an ornament not to be found in true antique works, except in those of the period of the Roman empire. The later Cinque-Cento camei are easily recognised by their extremely high relief, which gives the figures a very bossy appearance; they are also very much undercut, sometimes almost detached in portions from the field, which is now reduced to an extremely neat and even surface, whilst a remarkable polish and rotundity is given to all the projecting parts of the figures; so that they often look as if modelled out of wax, and then affixed to the surface of the stone. This glassy semi-transparent body of the raised parts is a sure test of the recent origin of the work on which it appears, for the same portions of the strata in an *antique* Onyx are usually converted into a dead and often chalky whiteness, by the action of the earth and of time upon them, during the ages through which they have been subjected to these powerful agents. Besides they never present that exact resemblance to designs in thick and opaque coloured enamels, so striking a peculiarity of the best antique performances.

But the most reliable test of antiquity in this class of work, is the similarity of the execution of the design, of the portraits for instance, with those on the coins of the same date; as it is very likely that a good cameo portrait on a larger scale served as the model to the ancient die-sinker, who was also by profession an engraver on gems.

Although the smooth and unworn surface of a cameo tells almost decidedly against its genuineness, as its exposed surface renders the work so much more liable to the injuries of wear and of time: yet one with a rough surface is by no means on that score alone to be pronounced unquestionably antique, on account of the common trick of dealers, before noticed, of cramming turkeys with newly-made gems, and thus in a few days anticipating the effect of centuries upon their polish. The style of work is by itself alone a very insufficient guide in determining the antiquity of a gem; for although the quaint exaggerated drawing of the artists of the Revival¹⁰ is easy to be recognised after a little practice, yet later engravers, like Pistrucci and Girometti, from the constant study of antique models, have produced works which would do honour to the greatest names of antiquity; and the head of Proserpine, by the latter, far surpassed any ancient work of the kind that I ever beheld—whilst the Flora of the former passed unquestioned for years as the chief ornament of Payne Knight's Collection. In such cases, therefore, the sole guide is the appearance which the Onyx always assumes from age, and which can only be learnt from long obser-

¹⁰ It is said that the antique Satyr's head was the type kept in view by M. Angelo in all his works. This is certainly true of the cameo-cutters of his age, for more than half their designs will be found to include or consist entirely of this grotesque subject: hence all camei on which

are represented Satyrs, or Fauns, or Bacchanalia, may be on that account alone shrewdly suspected of belonging to this school, and require very careful examination before their claims to an antique origin are allowed.

vation. Of this, the most obvious peculiarity is the opacity and extreme deadness acquired by the originally semitransparent strata of the stone. They actually are not to be distinguished from layers of enamel fused upon the ground of the work, and this effect is heightened by the excessive softness of manner and flat relief characterising many of the best antique camei; qualities which, as we have seen, the earliest artists of the Revival succeeded to some degree in imitating. Indeed many of the smaller antique camei, from their wonderful smoothness, flatness of relief, and depth of colour, can only be compared to certain of the best Limoges enamels on copper.

Ever since the revival of the art, gem engravers—especially those of the first two centuries since that epoch (the fifteenth towards its close)—have executed infinitely more camei than intagli, for the work of the former is easier by far than that of sinking the intaglio into the stone, as well as much more rapid, now that the operation is entirely effected by the wheel; so that no very great skill or practice is required to enable the engraver to produce a creditable performance;¹ and the ornamental appearance of such works caused them to be much sought after in those ages of show and external magnificence. The fashion, too, was very general of wearing camei set as pendants to chains; and in the hats, in place of the gold or metal medallions of the preceding century: and hence we have such a number of the portrait camei of the Cinque-Cento still preserved to us in the elegant enamelled settings of the time, the forms of which still shew the purpose they were designed to

¹ I was informed by a *working* executed for them the very neatly cameo-cutter at Rome that the finished cameo portraits on Onyx of dealers in articles of *virtù* in that city only paid six pauls, or three poets and philosophers, so extensively purchased by dilettanti to be shillings, apiece to the artists who set in studs, rings, &c.

serve.* From the infinite abundance of such works produced by artists of every degree of merit, during a space of nearly three centuries, it will easily be discerned how small is the chance of meeting with a really antique cameo among the numbers in existence. And this opinion is verified by experience, for in the numerous collections sold in London during the last ten years, and which I have examined, scarcely one stone in twenty presents all the required proofs of indubitable antiquity; however much collectors, and still more dealers, may be disposed to dispute the truth of this most uncomfortable doctrine. Many antique camei are cut on Sardonyx slabs of extraordinary dimensions, instances of which are exhibited in all celebrated collections; amongst these the pre-eminence in point of magnitude must be given to the famous Onyx of the Sainte-Chapelle, brought by King Baldwin from Constantinople, when that city belonged to the Franks in the 13th century. Some also exhibit an extraordinary variety of coloured strata; for instance, a large cameo representing a quadriga in the Paris Cabinet, where each of the four horses is cut out in a layer of the Onyx of a different colour; and portraits are often to be seen in which the hair, the flesh, and the laurel-wreath around the head are all represented in distinct shades. The works of the artists of the Renaissance are usually cut upon an inferior sort of stone, consisting of merely an opaque white layer upon a semi-transparent brownish ground, probably another reason for their working so frequently on the reverses of antique Sardonyxes, of a quality then unattainable at any cost; they

² The artists of this age were fond of exhibiting their own skill in competition with that of the ancients, hence we so frequently meet with a Cinque-Cento cameo cut on the reverse of an antique one: to which

spirit of emulation we owe many a convenient means of comparing the styles of the two periods—where also the superiority must often be adjudged to the more recent hand.

were also frequently engraved upon stones of but one colour, as Carnelians, Lapis-lazuli, and Garnets, where most of the effect of the design is lost from the absence of contrast between the ground and the design. Portraits of this date sometimes occur on Rubies and other hard gems, which have little to recommend them besides the difficulty of execution, a point utterly disregarded by a correct taste. In the same century also, the scarcity³ of materials affording layers of distinct colours led to the extensive employment of shells in which the natural strata exactly imitate the colours of the best pieces of the Sardonyx, an art which the modern Romans have carried to an astonishing degree of perfection. At present the Indian conchs are used for this purpose, affording a choice of the most beautiful strata: but the artists of the Renaissance were forced to content themselves with the shells of the Mediterranean, and works of extraordinary labour and taste—for instance, a battle scene, with an infinity of figures—will be often seen thrown away upon these coarse and perishable materials. In the Kensington Museum are some admirable busts of the Cæsars, on shell, by an artist of the early Renaissance school. This use of shells for the making of camei is said to have been practised by the ancients, and specimens of such works have occasionally been brought before me, as for instance, a head of a nymph in the Herz Collection, said to have been found in a vase at Vulci, and which certainly bore every appearance of true antique work. Other examples too I have seen,⁴ but with very great doubts of their authenticity, as it seems impossible that so fragile a substance could remain unchanged for so many ages, when

³ For the same reason we often find camei of this date cut upon the reverses of really antique gems, both camei and intagli. Some of the scarabei, presenting masks on their backs, may owe this rare decoration to some artist of this period.

⁴ For example, a very spirited portrait of Galba, to all appearance an antique work.

buried in the earth. The same observation equally applies to the camei in Turquois so frequent in collections, a stone which loses its colour so speedily when exposed to damp. Heads in full relief, in Amethyst, Jacinth, and Sard, are often met with, but the same small proportion of true antiques occurs amongst these as amongst the other classes of camei already noticed: a fact easily accounted for when we consider the facility of the execution of these works by the modern process, and the large reward that stimulated the artist's ingenuity to aim at a successful imitation of antique works.

That indeed both busts and statuettes cut out of solid gems were known to the Romans, appears from the numerous authentic portraits of imperial times in this style still preserved to us: one of the most famous of which is the bust of Tiberius in a stone like the Turquois, now in the Florence Collection. Pliny states that when the Topazion, or Peridot, was first introduced into Egypt, it became at once a favorite gem; and a statue of Queen Arsinoe, 4 cubits high, was made out of it (of several pieces united, no doubt), and dedicated by her daughter Berenice within the so-called Golden Temple erected to her memory. For this Juba was his authority, but he had himself seen a figure of Nero in armour, 15 inches in height, cut out of a block of Jasper; and also statues of Augustus, in Obsidian, an equally hard material.

I have seen a figure of Osiris in half relief, on a true Ruby, about half an inch long, incontestably antique, and of good Roman work. But most of the "Ruby" camei portraits of modern times are cut in rose Garnets, and foiled up to the proper colour. Some heads also occur cut in relief on Emeralds of such great intrinsic value, that it is almost impossible that any artist, except in the times of imperial magnificence, would have been allowed to use so extravagant a medium

for the exhibition of his skill. There is, however, no class of antiques on the authenticity of which it is harder to decide, than upon these works in relief upon the harder gems.

The Odescalchi cameo now in the Vatican Cabinet, formerly supposed to represent Alexander and Olympia, but according to Visconti, Ptolemy Euergetes and Berenice, is a precious monument both for the beauty of the work and for the great volume of the stone; but the most singular peculiarity of this cameo is that the slab of Sardonyx upon which it is cut is composed of several pieces united together for the purpose, and that in order to conceal the joinings the artist has introduced necklaces upon the necks of the two busts.

In the chapter on *Pastes*, mention has been made of the large cameo of Bonus Eventus, formed of an excellent imitation of Lapis-lazuli. Caylus, II. LXXXI., gives a drawing of an admirable head of Medusa, 4 by 3½ inches in size, and made of a paste subsequently worked over with the diamond point in the same way; and on the same plate he gives a bust of Victory, set in a large antique ring of bronze, which he describes as a perfect imitation of an Onyx of three strata.

Vases also were in use among the Romans, which may be regarded as huge camei, being entirely covered with subjects in relief, such as the famous Agate *Carchesium* of St. Denys, and others still in existence formed of similar materials. These also were imitated in paste, as the elegant vase of the Museo Borbonico shews, which is entirely covered with a trellis-work of vines, cut out of a delicate white layer, fused upon a dark blue ground; precisely in the same manner as the famous Portland vase was supposed by Wedgwood to have been manufactured. The mention of the latter recalls to my mind an idea that struck me in reading the minute account of the coffer of Cypselus, given by Pausanias: in

which one of the compartments "represents Peleus approaching Thetis, from whose hand a serpent rushes at him;" a description which seems to me to explain the meaning of one of the much disputed groups upon this vase, in which a youth is approaching a female seated on the ground, who pushes him away with one hand, while a huge crested serpent rises open-mouthed against him from the other. Fragments of vases of this kind are not very rare, and all that I have seen are executed with great taste and delicacy of finish.

A very singular kind of antique paste, something between a mosaic and a cameo, is presented in the small pieces of the size of ring stones, themselves imitating Lapis-lazuli, and inlaid with a pattern of variously coloured pastes, arranged in the form of different objects. Two in the Herz Collection—one a vine leaf, the other a parrot—brought the high price of £10 apiece, being considered unique; one of these (the vine leaf) or an exactly similar one, is figured by Caylus. Here too we may appropriately notice the glass discs stuck into the mortar when still moist, which closes up the tombs in the Roman catacombs. These are usually called the bottoms of drinking-glasses, but all that I have seen appear perfect in themselves, and never to have formed a portion of any other vessel. They contain within their substance rude designs, often portraits of the latest emperors, surrounded by inscriptions, the whole worked out of a stout leaf of gold laid between two pieces of glass afterwards fused together, and thus incorporated within their substance. It seems most probable that they were manufactured expressly for the purpose to which we find them applied, and for that alone, namely, to serve as imperishable memorials of the date: in the same manner as the coins deposited along with the ashes of the deceased in earlier times.

The consideration of this, the latest era of Roman art,

introduces the subject of a very numerous class of camei, apparently belonging to the same period. These are inscriptions cut in relief, in Onyx or burnt Carnelian, and mostly enclosed within a rim of the same layer that the letters are formed of, which last are usually engraved with extreme neatness, and of a shape greatly resembling those of the legends on the coins of the successors of Constantine, when a peculiarly neat compact character replaced the sprawling open types of the previous century. Hence they may be justly assigned to the 4th century, a date with which the purpose of the legends is in strict accordance. Nothing but inscriptions are to be found in this style of engravings in relief; with one exception, an unique cameo in my possession, representing Anubis bearing the caduceus and the palm, the well-known Gnostic device, executed in the precise manner of these inscriptions upon a green and white Onyx, the figure being inclosed within a border left of the upper layer of the stone. The spelling of these legends (usually containing nothing but a name and a good wish, as EGNA-TINICA—"Success to thee, Egnatius!") offers some curious anomalies to the student of the transitional state of the Latin language. The Greek and Latin characters are used indifferently; and the B replaces the V wherever the harder sound of the letter is required, the V being at that time always sounded as our W: thus we have VIBAS LVXVRI HOMO BONE—"Long life to thee, Luxurius, thou good man!" The Greek legends offer perpetually instances of the so-called Romaic pronunciation of the vowels, as XEPETE instead of Χαίετε, "Hail"; and are often extremely hard to make out, from this interchange of letters, their similarity of form, and the manner in which they are run into each other. This gave rise to a most absurd mis-translation of one in the Herz Collection, reading ΣΤΡΑΤΟΝΙΚΗΥΜΑΙΝΕ, which last word

being read ΜΙΑΙΝΟΥΣΑ, was interpreted to convey a very insulting address to the lady instead of a good wish, its actual meaning. Others of these inscriptions only give the name and office of the owners as ΕΡΜΑΔΙΩΝ ΚΑΙΣΑΡΟΣ ; and others present maxims, one of which is of frequent occurrence, and of which Caylus remarks that it should be taken as the motto of every philosopher :

ΑΕΦΟVCIN Α ΘΕΛΟVCIN ΑΕΤΕΤΩCAN ΟΥ ΜΕΛΕΙ ΜΟΙ.

A most interesting stone of this class, the only one I have seen in its original gold ring, and that of the smallest size, evidently only intended for the top joint of the little finger, bears the legend ΕΥΤΥΧΙ^s ΕΥΧΕΒΙ^p and thus may have been a present to the famous chamberlain of Constantius, the persecutor at once of the Cæsar Julian and of the patriarch Athanasius.

The Byzantine period presents us with many camei, often cut on pieces of Sardonyx of uncommon size, and of the most beautiful colours. But as might have been expected from the lateness of the date, the execution of the subjects is very far from corresponding with the perfection of the material, being rude and clumsy in the extreme, the figures seeming to have been hewn out of the upper stratum of the Onyx by some rude instrument ; it is possible they may have been scraped out of the stone with a piece of emery, like the coarser scarabs of the Etruscan period : at least, the peculiar roughness of finish of both these classes is difficult to explain in any other manner. The subjects are taken from scripture, the Angelical Salutation is a very favourite one, a circumstance affording some clue to the time of their execution, since the portraits of the Virgin do not appear upon the bezants before the reign of John Zimisce, at the close of the 10th century. Had these camei been the productions of an

^s Mayest thou prosper, Eusebius !

earlier age, they would have borne heads of Christ, or else nothing but Christian symbols—such as vines, doves or lambs. I have actually met with a plasma, on which was cut a bust of Christ, in mezzo-relievo, inscribed IC XC of very neat work, and resembling much the portraits on the early Byzantine aurei, beginning in the reign of Justinian Rhinotmetus, A.D. 685, the execution of which is still careful and by no means despicable in point of art. These huge camei often bear long legends in ill-shaped barbarous characters, the orthography of which is precisely that of an uneducated Greek of the present day, such is the confusion of the vowels and diphthongs of similar sound. Thus on one splendid Sardonyx of large size, we find *Χερε και χαριτωμενη* instead of *Χαιρε κεχαριτωμενη*, each mode of spelling having exactly the same pronunciation at that time as at present in the spoken language.

Agate vases, or as they may be called cameo vases, being of such great rarity, it may be allowed me here to return to the subject in order to mention one described by Caylus; II., LXXXVI. This was a vase cut out of an Agate of three strata, 3 inches high by 2 inches wide, in form much like the Portland, but tapering more towards the bottom. The subjects upon it were Apollo and Diana, Cupid and Psyche, and a group of small cupids, some chasing butterflies, others riding through the air in cars drawn by them. This beautiful example of the art had been sold shortly before (1754) for a small price, at an auction of the refuse of the Royal Garde Mobile. When described by Peiresc, a century before, it was mounted in an elaborate Cinque-Cento setting of gold, enriched with precious stones, shewing the high estimation in which it had been held by its first possessor at that period, probably François I. The want of taste, or the avarice of the age of Louis XV., had stripped off the precious casing, but sold the far more

valuable Agate as a piece of rubbish. Besides vases and bas-reliefs in *ivory* of the earliest date, we have also many true camei in this substance, or small medallions bearing heads in low relief on one side, and on the other numerals or letters: these were tickets for admission to places of amusement, or to entitle the bearer to certain largesses given by the emperor on days of rejoicing, as Martial:—

“ Nunc dat spectatas tessara longa feras.”

And others may have been *tessaræ hospitales*, or equivalents to letters of introduction for the use of travellers. As might be expected, these small relics are much decayed by time and are liable to fall to pieces when dried after their discovery: it has, however, been found that they may be preserved from this danger by saturating them for some time in a hot solution of glue, and thus restoring to the pores of the ivory the due proportion of gelatine extracted from them by time.

Camei of barbarian origin are, as might be expected, very rare. I have, however, met with a few of apparently indubitable antiquity. One was a finely-executed Brahminee bull on Onyx, the figure white upon a transparent ground. The work was evidently Greek, not Hindoo, and therefore must have belonged to the period of the Macedonian kings of Bactria, on whose copper coinage this type sometimes appears. This cameo had been brought from India, but I could not ascertain the name of the locality where discovered. Another Indian cameo of antique workmanship was a front face of Buddha, of rude, bold work, on a brown and white Sardonyx of considerable size. But the most curious of all the examples of this style was a crouching lion, of early Persian work, extremely stiff and archaic in execution, as if the engraver had possessed but little power

to carry out his conception upon the hard gem, a large Oriental Onyx of three strata and of the finest quality.

Amongst the Pulskey camei is a fragment of a large one representing a king, in the costume of the Sassanian monarchs, engaged in combat with an animal, the figure of which has been broken off. The king's head is encircled by the diadem, terminating in broad flowing ribands so conspicuous in the rock-sculptures commemorative of Sapor I. The work of this cameo is truly excellent and equal to that of the best imperial times of Rome, and far superior to the contemporary Roman engravings; indeed, were it not for the costume of the principal figure, one would be disposed to refer it to a much earlier date. It, however, affords another proof of the statement, before advanced, of the wonderful revival of the arts under the restored *Persian* dynasty, and was doubtless the *chef-d'œuvre* of some Asiatic Greek patronized by Sapor. This composition, agreeably to the Roman style of late times, is inclosed within a border left from the upper layer of the stone, a fine Oriental Onyx.

Together with the two Indian gems above described, and *said* to have come also from Cabul, was a cameo on Sardonyx, Victory in a car, bold and vigorous in treatment, though by no means minutely finished, and showing every mark of an early Greek origin—a singular testimony to the diffusion of Hellenic art throughout the northern districts of India. The projecting portions of the design were much worn down and flattened by friction, perhaps among the gravel in the bed of some watercourse whence it had been rescued by the recent discoverer. The composition of the design bore a striking resemblance to the reverses of the Sicilian tetradrachms.

But the most interesting Oriental Cameo, though of a much later date, that has ever fallen under my notice was one in the Webb Collection sold by Christie and Manson

(1854). It was not, indeed, of ancient times, for the subject was Shah Jehan slaying a tiger that had killed one of his attendants, whose corpse lay upon the ground; the history of the event, in Persian characters, occupied the field of the cameo. The style of the engraving was purely Oriental, although one would rather have expected such a work to have displayed something of the Italian taste, in consequence of the constant patronage shown by the Mogul's court to the jewellers and lapidaries of that nation. The stone—a splendid Onyx of the clearest colours—was also of great size, about three inches in diameter, through which it had been pierced with a fine hole for the purpose of sewing it upon the dress, after the manner used by the Romans.



Ceres, with name of artist Aulus. Sard.



Cicero: contemporary portrait. Antique Paste

NAMES OF ARTISTS ON GEMS.

In all the collections of Europe taken together, there are certainly not a hundred⁶ gems inscribed with the genuine

⁶ Koehler boldly asserts that there exist but four gems bearing the indubitable signature of the engravers; but his distinctions are so arbitrary that his dictum may be regarded as a mere German paradox. An archæologist, however, of the greatest experience, and who has paid especial attention to this particular question, by the collection of the

casts and the study of the originals of all the known signed gems, is of opinion that the number may be extended to sixty. The rules which he had laid down to himself for establishing the reality of these signatures, to my great satisfaction, exactly coincided with those already written by me in the following article.

name of the artist who engraved them. And these authentic signatures are usually distinguished by this peculiarity, that they are placed at the side of the design, and engraved in minute but elegant Greek characters. Many antique stones also occur in which these names have been added by a modern hand in order to augment the value of the gem; but these forged names can generally be detected by their great inferiority in neatness of execution to the genuine. The ancient artist evidently attempted to distinguish his own signature, both by its position and by the miniature size of the letters, from the common inscriptions so abundant upon intagli, especially those of Roman times, which consist of the initials or the name of the owner, and sometimes that of the town of his domicile; or, still more frequently, invocations to the deities whose figures are represented upon the stone.



Signet of Rafina. Red Jasper.



Gryllus: signet of Titianus. Obsidian

The legends occasionally seen on Etruscan intagli, and which add considerably to their value, are the names of the gods or heroes engraved upon them, according to the usual practice of that people in their other works of art, as on painted vases and the backs of their metallic mirrors. The Greeks, on the contrary, with their usual good taste, never impaired the effect of the design by an explanatory inscription: all that they allowed themselves, and that but very rarely, was to hand down the artist's name in the most modest and unpretending manner possible.

The subject of artists' names on gems unavoidably recalls to one's mind the Poniatowsky Collection, where each stone bears engraved upon it the name of some celebrated artist of antiquity—Pyrgoteles, Dioscorides, Cronius, Solon, Aulus, Admon, Gaius, &c. These gems are of large dimensions, often of fine quality, and engraved with mythological subjects, for the most part executed with much taste, but frequently also displaying a good deal of the flighty *Berninesque* manner of the



Neptune : Poniatowsky gem. Amethyst.



Inscribed Etruscan Gem

last century in the attitudes of the figures and in the treatment of the drapery. The heads and the single figures are by far the most pleasing in the series, and approach the nearest to the true antique. These gems were all executed for Prince Poniatowsky (d. at Florence, 1833) by the best Roman artists of the past age, Cerbara, Girometti, Pichler, &c., and the inscriptions, which are masterpieces in this very difficult branch of the art, are from the hand of Dies, who took upon himself this department alone. Had these clever engravers put their own names upon their productions, instead of forging those of ancient artists, these masterpieces of their skill would have increased in value with every passing century: whereas at present, they are looked upon as worthless, are sold for

merely the value of their gold mountings to those persons who understand gems, and fill the show-cases of every curiosity dealer in London, who often succeed in passing them off upon "country collectors" as the genuine works of the artists whose names they bear. As a proof of the little value in which they are now held, I may state that, at the sale of Lord Monson's Collection, consisting of 154 of the best of these gems, they went at prices ranging from 25s. to 30s. each, though many of them were cut on the finest Amethysts and Sardis and mounted in elaborate gold frames of very elegant designs. Knowing all this, we cannot but be amused at the blind faith of the person who last year (1858) took the trouble to publish an elaborate and expensive account of these all but worthless forgeries, illustrated with admirably-executed photographs of the most curious, and this evidently under the full conviction, as appears from his preface, that they are all the genuine productions of those celebrated ancients whose names appear so conspicuously upon them. How the Prince himself could have conceived so absurd an idea as the formation of this series, and have wasted so large a sum in the carrying out of his ridiculous project, is very difficult to imagine, since he had inherited from his uncle, the last king of Poland, Stanislaus, a splendid cabinet of true antique gems, the possession of which ought to have inspired him with better taste.⁷

⁷ The *gem* of the original collection was the famous Helmet, which merits a detailed description, both on account of its extraordinary beauty, and from its having fetched at its last sale, February, 1859, the largest sum (89*l.*) ever obtained for an intaglio at a London auction, though it is said that Herz had refused an offer for it of 150*l.* from

the Duc de Blacas. The stone, a Sardonyx of considerable size, $\frac{1}{2}$ by $\frac{3}{4}$ inch, is of most singular quality: the upper layer being an opaque red Jasper; the under, a transparent greenish Calcedony or Plasma. The intaglio, deeply cut, is a Greek helmet, with flowing crest of horse-hair; but the crown is unusually spherical. This is ornamented with

This original cabinet numbered, when catalogued by Visconti, no more than 154 gems, including a few splendid camei. The intagli were all of the finest character. Amongst them was the masterpiece of Dioscorides, the bust of Io, a three-quarter face, with small budding horns on the temples, and very deeply cut in a most splendid Sard; the eagle's head, inscribed MIE, and hence ascribed to the collection of King Mithridates; the antique paste, a portrait of Nicomedes IV., with the name of the artist Pergamus; and the famous helmet described below in detail. This last, I am informed, is of larger dimensions than that of Stosch on the same peculiar Jasper-plasma, now in the Berlin Cabinet, as well as somewhat more elaborate in the ornamentation. It was the Prince, the last possessor, who, by adding to these genuine treasures so many absurd forgeries, brought it up to the vast number of 3000 in all; and thereby so discredited the whole cabinet that, when it was brought to the hammer in London, about thirty years ago, even the established reputation of the Io was not proof against the suspicion excited by the bad company amongst which she appeared, so that this matchless gem was actually knocked down for 17*l*,

the figure of Bellerophon on Pegasus, attended by his dog, and spearing the Chimera represented on the cheek-piece beneath: all, though on so minute a scale, miracles of art, both in design and execution. The flowing crest of horse-hair is carefully and naturally rendered by means of the diamond-point alone. Winckelman describes one of Stosch's gems, almost identical with this, both as to the nature of the stone and of the subject engraved on it. This peculiar variety of Sardonyx seems to have been a favourite of the ancient engravers for such re-

presentations, for the Herz Collection also boasted another gem of the same curious material, but engraved with a tall Corinthian crater; its surface decorated with Bacchic subjects, almost equal in finish and delicacy to the work of this helmet. Curiously enough Winckelman remarks that the helmets and vases of this description, executed in imitation of Corinthian bronze-work, occurring in the Stosch Collection, are all very highly and carefully finished, and to be numbered amongst the choicest treasures therein preserved.

although in the previous century it would have commanded, if sold singly, fully 1000*l.*,—a sum paid for other works made valuable by the artists' names, yet falling far short of this both in artistic and historical value.

The only gem-engravers mentioned by name in Pliny's account of the art are Pyrgoteles, Apollonides, Cronius, and Dioscorides: nor do any others, to my knowledge, occur in any ancient author. But their own works have preserved to us a somewhat copious list of names, which, together with the subjects they accompany, will be found annexed to this article.

An early and therefore interesting notice of the first artists of the Renaissance is given by Camillo Leonardo, in the year 1502, and therefore but a short time after the art had been revived in Italy. Nevertheless, he speaks of their works as already diffused over the whole of that country, and not to be distinguished from the antique; and affirms that the following gem-engravers, his contemporaries, were equal in merit to any of ancient times:—in Rome, Giovanni Maria da Mantova; at Venice, Francesco Nichini da Ferrara; at Genova, Jacopo Tagliacarne; at Milan, Leonardo da Milano; "Who sink figures in gems with such accuracy and neatness that nothing can be added or taken away therefrom." He adds that an art then flourished, altogether unknown to the ancients, that of Niello in silver, in which he praises as a most distinguished worker Giovanni, surnamed Frazza, of Bologna. Vasari, writing in 1550, himself the contemporary of all the best artists of the Cinque-Cento period, names with commendation Giovanni del Castel Bolognese, who cut intagli in rock-crystal, especially a Tityus and a Ganymede, for the Cardinal Ippolito dei Medici. Valerio Belli, Il Vicentino, was a famous engraver, as was also his daughter: he died in 1546, and therefore could not have executed the portraits of Queen Elizabeth (1558) so often

ascribed to him.⁸ Luigi Anichini of Ferrara was distinguished for the fine engraving and exquisite finish of his intagli. Alessandro Cesati, Il Greco, "surpassed all his age in the drawing, gracefulness, and excellence of his works, and left behind him camei and intagli of the greatest merit and diversity." In the Pulskey Collection is a spirited portrait of Pope Paul III, ascribed to this artist, and cut on a large and beautiful Sapphire, a most admirable specimen of his skill. It has been asserted with some plausibility that certain supposed antiques, inscribed ΚΟΙΝΤΟΣ ΑΛΕΞΑ, are in reality works of this artist.



Hercules and Antaeus: Cinque-Cento Sard.

COIN-DIES.

That the dies for the coinage of the Greeks and Romans were cut by the artists who also engraved the gems of the same period is evident from the identity of treatment of the heads and subjects occurring in each of these classes. Some singular instances in confirmation of this opinion have come under my notice. Thus, a Sard surrounded with an Etruscan border, bears engraved upon it a cow looking backwards, precisely similar to the curious representation of the same

⁸ These are usually the works of Colderé, the *protégé* of Henri IV.

animal on the silver of Sybaris, which might well be mistaken for an antelope. Another Sard with a figure of Abundantia was the exact counterpart in its minutest details of the reverse of a denarius of Hadrian in my possession.* If we compare the numerous intagli of Minerva, so abundant in all collections formed in Italy, we shall be struck by the similarity of their execution, in numerous instances, to the reverses of the coinage of Domitian, who regarded this goddess as his patroness, a circumstance which, no doubt, made her the fashionable subject for signets during all the space of his long reign. On many Greek coins, especially those of Sicily and Magna Grecia, names are found engraved in a small character on the accessories of the subject, such as the fillet or the helmet of the head of the deity on the obverse, and occasionally on a small tablet, as sometimes on gems. These are supposed, with considerable certainty, to be the names of the engravers of the dies, a theory strongly supported by the inscription in full ΝΕΥΑΝΤΟΞΕΠΙΟΙΕΙ on the medals of Cydonia in Crete. Nothing of this kind is met with in the Roman series, when such a liberty would not have been allowed to the engravers, who were *then* the slaves attached to the Quæstor or Triumviri Monetales; but I fancy I have discovered an ingenious device employed by them for recording their names in the symbols so often seen in the field of the consular denarii. It will be found on examination that the symbol on the reverse has always a certain connexion with that on the obverse of the coin: thus, on a denarius of the family Papia, one is the petasus, the other the harpé of Perseus; on another the obverse gives two horns conjoined in the form of a crescent, the reverse

* A head of Commodus, on a gem in the Mertens-Schaafhausen Collection, is also evidently the work of the same engraver who cut the die for a denarius of that prince, in my Collection.

bearing a myrtle wreath, both common Bacchic emblems; from which one might hazard a conjecture that the engraver of the first die was named Perseus, of the second Dionysius—for it must be remembered that at Rome all artists were Greeks or of Greek extraction, slaves or freedmen. We have a corroboration of this theory in the case named by Pliny, of Sauros and Batrachos introducing the *rebus* of their names, the “lizard” and the “frog,” in the capitals of the pillars sculptured by them in the reign of Augustus, immediately after the cessation of the issue of the consular mintage. On the denarii of certain families, as the Papia and Roscia, these twin-symbols are extremely numerous, indicating, like the numerals which take their place on the mintage of other families (as the Bæbia), the enormous number of dies used up in the issue of the silver currency while the Quæstor of that particular name was in office as Master of the Mint.

How the ancient coin-dies were supplied in sufficient numbers to meet the requirements of an extensive commerce, which employed an exclusively metallic currency, is a point the explanation of which is a problem still unsolved. The difficulty is increased when we consider the high relief of the types on the larger coins, such as the didrachms and tetradrachms of the Greek series.¹⁰ And it should be remembered that, in the present day, the making the die for a crown-piece (no larger than the latter) is the work of six months. Some suppose that the plan was adopted of cutting a punch in relief, and with this stamping dies in bronze in any number required (the modern practice); but a fatal objection to this explanation is, that *then*, as now, every issue of coins would have produced every piece absolutely identical with

¹⁰ Besides still larger pieces, as the Syracusan Medallion, a decadrachm, and the gold octodrachms of the Ptolemies.

the rest, whereas, no two ancient coins, though of the same year, are ever found exactly alike—thus proving the enormous quantities of dies employed at every mintage. Pistrucci believed that he had found out the secret by obtaining cast-iron dies directly from his models: and certainly there is a soft and flowing outline to the types of the large Greek pieces, scarcely to be attributed to the impression of a *cut* metal stamp. Again, to have engraved by hand dies sufficient for the coinage of such cities as Athens, Corinth, or Velia, which still exist in endless quantities—not to speak of that of Philip, and still more of Alexander, which supplied the currency of the whole civilised world, and when we consider the constant breakage of the dies—so tedious a mode of multiplying the stamps must have required such an army of die-sinkers, and such an amount of artistic skill amongst them, as it is scarcely credible could have been furnished even in the most flourishing times of Greece and Asia. The dies made of mixed metal, occasionally discovered, certainly corroborate the theory of Pistrucci: these might have been easily cast upon a proper sand-mould and completed by the graver in a very short space of time. In the Meyer Collection is a die of mixed metal for the reverse of the gold octadrachm of Berenice (if genuine): it is well preserved, and still shows traces of the hammer upon its back. Caylus figures a similar die for the obverse of a medal of Augustus, found at Arles. How dies in this soft composition were able to resist the blows of the hammer required to bring up the impression upon these large pieces of metal is quite a mystery. Some suppose that the blanks were struck when red-hot, but in this case the heat must soon have softened the fusible metal of the dies themselves, and have speedily destroyed them. The true solution of the difficulty seems to be that the blanks of pure metal cast in a spherical form

to assist the receiving the type were struck when cold; the gold and silver being without alloy would yield to the die almost as readily as pewter, and the minters did not care for the destruction of the dies, which they had some method of reproducing without great delay or expense—a sufficient explanation of the vast number of dies which, we have already observed, can be proved to have been used in one and the same issue of denarii. It is, however, strange that, if the dies were commonly made of an indestructible metal like the composition described, so few of them should have come down to our times: perhaps they were always carefully destroyed when worn out, to prevent their being used by forgers. Of the Roman period a few iron dies have been preserved, but no one has ever disputed their employment at that late period, and the infinite numbers of them used in the coinage of the Empire would, in a few years, be converted into undistinguishable masses of rust. But even then a more expeditious mode of producing the species of currency most in demand was resorted to; for the great proportion of the base silver of the Middle Empire was all cast in clay moulds, quantities of which have been discovered in the ruins of a Roman mint at Lyons, as well as in different localities in this country and in France, some of which are described by Caylus. These, therefore, could not have been, as at first supposed, the unauthorised implements of native forgers, but an expeditious mode made use of by the mint itself to multiply a debased currency.



Di-drachm of Caulonia



Marsyas, by Apollonius. Jacinth

NAMES OF ANCIENT GEM ENGRAVERS

OCCURRING ON THEIR BEST AUTHENTICATED WORKS, AND THE COLLECTIONS
WHERE THEY EXIST AT PRESENT.¹

Extracted chiefly from the 'Catalogue des Artistes de l'Antiquité,' par le Comte de Clarac.
1849. Paris. With Remarks and Corrections.

ADMON (ΑΔΜΩΝ).—Cameo profile of Augustus. Blacas Collection.

Hercules drinking. Sard. Marlborough.

Head of Hercules advanced in life. Smith.

Hercules Musagetes. Poniatowsky.

Hercules seated, a cow by his side. Antique paste. Raspe.

Vulcan forging armour for a youth seated by a veiled female; probably a work of Natter's.

ÆLIUS (ÆΛΙΟΣ and ΑΙΛΙΟΣ).—Head of Tiberius, front-face. Sard.
Corsini Coll.

Head of Homer. Nicolo. The Hague.

Portrait unknown. Marlborough.

ÆPOLIAN (ÆΠΟΛΙΑΝΙ).—Head of M. Aurelius. Antique paste.
Stosch.

Bacchante. Sard. Probably the owner's name.

ÆTION (ÆΤΙΩΝΟC).—Head of Priam. Sard. Devonshire Coll.

Bacchanalia; nine rustics sacrificing. Probably by Dormes.

Mercury bearded. Sard. Petrée Coll.

¹ All, not otherwise specified, are intagli.

AGATHANGELUS.—Head of Sextus Pompeius. Sard. Stosch. Spelt

ΑΓΑΘΑΝΓΕΛΟΥ, but the gem is suspected.

AGATHEMERUS.—Head of Socrates. Sard. Blacas Coll.

AGATHON.—Bacchus. Beryl. Algernon Percy.

AGATHOPUS.—Head of Sextus Pompeius. Beryl. Florence.

Elephant's Head. Stosch.

Two hands joined. Stosch. Sard.

ALBIUS.—Head of Caligula. Sard. Barbarini.

ALEXA.—Bull. Sard. Berlin.

ALEXA, AULUS.—Paste. Barbarini.

ALEXA, QUINTUS.—Cameo fragment. Legs of a warrior. Florence.

N.B. All these are supposed to be works of Alessandro Cesati il Greco.

ALEXANDER.—Cameo. Cupid taming a lion. On one side Venus, on the other a Bacchante. Morpeth.

Cameo. Head of Drusus. Also assigned to Alessandro Cesati.

ALLION (ΑΛΛΙΟΝ and ΑΛΛΥΩΝ).—Head of Apollo laureated. Sard. Florence.

Cameo. Head of Apollo. Raspe.

Bacchante seated on the lap of a faun sacrificing to Priapus, a satyr plays the flute: Calcedony. Besborough.

Unknown Roman bust. Raspe.

Muse. Sard. Strozzi.

Some assert this name to be the signature of Gio. Mar. da Pescia.

Bull butting. Onyx. Thoms.

Head of Ulysses, front-face. Sard. Hamilton.

Venus Marina holding a sea-horse. Sard. Feriniani.

Nessus and Deianira. Lippert.

ALPHEUS and ARETHON.—Cameo. Head of the young Caligula. Azaincourt.

Cameo. Germanicus and Agrippina. This used to be shown at the Abbey St. Germain des Prés as the betrothal ring of the Virgin Mary: it was stolen with the other treasures in 1795 when the abbey was burnt down, and subsequently sold to the Russian General Hydrow.

ALPHEUS alone.—Ajax seated on a rock. Sard.

Dying Warrior. Cameo. Derring.

Barbarian king in a biga. Cameo. Albani.

Venus and Cupid drawing a butterfly out of a well. Cameo.
Venuti.

AMMONIUS.—Head of Laughing Faun. Jacinth. British Museum.

AMPHOTERUS.—Head of youth with a fillet. Black Jasper.

Blacas. Supposed to be the head of Rhetemalces II.

AMARANTHUS.—Hercules driving away the Stymphalian birds.

Sard. Praun. (Not now in that Collection.)

ANTEROS.—Hercules carrying a bull. Sard. Devonshire.

A symbolic group. Sard. Lessing. (Merely the owner's name.)

ANTIOCHUS.—Head of Pallas helmeted. Sard. Andreini.

Cupid bending his bow; in front a butterfly. Int. Sard.
Raspe.

Bonus Eventus. Red Jasper. M'Gowan.

APELLES.—Mask. Sard. Jablonowski.

APOLLODOTUS.—Bust of Pallas armed. Sard. Barbarini.

The Dying Orthryades, near him two warriors. Sard.
Lucatelli.

APOLLONIDES.—Cameo fragment of a cow lying down. Sold by
Stosch to the Duke of Devonshire for 1000 guineas.

Ox grazing. Amethyst. Raspe.

Cow lying down, as in the cameo. Sard. Hague.

Mask. Garnet. Berlin.

APOLLONIUS.—Diana leaning against a pillar; a rock in the back-
ground. Amethyst. Naples.

Head of Mæcenæ. Jacinth. Rhodes.

AQUILAS.—Venus bathing, Cupid by her. Raspe.

A horse. Stosch. The name spelt AKYIAOV.

ARCHION.—APXIONOC on the robe of Venus Marina carried by a
Triton. Sard. Hague.

ASPASIUS.—Head of Indian Bacchus. Red Jasper. Worsley. (A
copy is in the British Museum.)

Head of Junius Brutus. Raspe.

Head of Agrippina the Elder as Ceres, crowned with wheat
ears. Beryl. Marlborough. Perhaps a work of Natter
or Flavio Sirletti.

Head of Jupiter—fragment. Red Jasper. Florence.

Juno standing, at her feet a peacock.

Head of the City of Antioch, Worsley.

Head of Pallas, in a highly ornamented helmet. Red Jasper. Vienna. Many copies of this by Natter are known with his signature upon them.

ASPUS.—Centaur carrying off a Bacchante. Amethyst. Thoms.

ATHENION.—Jupiter in his car throwing his bolts at two giants with serpent legs. Cameo. Naples. Antique copy of this. Webb.

Female head. Amethyst. Lippert.

AULUS.—Cupid nailing a butterfly to the trunk of a tree. Sard. Thoms.

Cupid in fetters leaning on a hoe. Cameo. Barenth.

Cupid chained before a trophy. Sard. Carlisle.

Cupid holding a cornucopia. Calcedony. Raspe.

Head of the young Augustus. Sard. Lippert.

Horseman in armour. Sard. Florence.

Fore part of a horse. Garnet. Caylus.

Diana or Amazon. Sard. Buoncompagni.

Esculapius—bust: the name in a tablet. Sard. Strozzi. (His finest work, of which innumerable copies, some antique, are extant.

Head of Faun—front face. Sard. Jenkins.

Female pouring a libation. Stosch.

Head of Hercules. Sard. Northumberland.

Youthful head. Cameo. Collegio Romano.

Lion devouring a horse. Green Jasper. Meghan.

Mercury holding a ram's head. Sard. Raspe.

Head of Sextus Pompeius.

Head of Ptolemy Philopator or of Abdolonymus—in front a bull's head; behind, an old man with a staff. Sard. Bibliothèque, Paris.

Quadriga. Sard. Carlisle.

Venus seated on a rock balancing a stick, at which a little Cupid catches. Agate. Vettori, afterwards Jenkins the banker. (This name has beyond all others been made use of by modern artists. Natter confesses that he put it upon a copy of the Venus Vettori, of which he made a Danae.)

The following gems are also attributed to Aulus:—

Cupid holding a butterfly. Jacinth. The Hague.

Head of Ceres. Sard. Marquis de Drée.

Faun's head. Nicolo. Beck.

Head of Laocoon. Bibliothèque Royale.

Lion seizing a stag. Red Jasper. Lord Meghan.

Head of Mæcenæus. Sard. Lord Greville.

Mercury carrying the infant Bacchus. Jacinth. The Hague.

Pan and Olympus. Sard of three layers. Beck.

Sacrifice to Venus: three females, a man, and a satyr, perhaps of the 16th century.

AXEOCHUS.—Faun playing the lyre, Cupid with a thyrsus, between them an altar on which is a crescent. Stosch.

Head of youthful Hercules. Sard. Cheroffini.

Perseus carrying the Medusa's head, has on his buckler this name AÆEOX Stosch.

Bacchante. Paste. De Thoms.

Hercules, Mercury, Vulcan. Sard. Count Wackerbarth.

BEISITALAS.—Cupid leaning on a spear, his legs crossed. Agate. Florence.

BOETHUS.—Philoctetes reclining and driving off the flies from his wounded foot with a wing. Cameo. Milliotti.

CAESILAX.—Minerva seated. Sardonyx. Constable.

CAIUS or GAIUS.—Head of a dog, perhaps of Sirius, full face; very deeply cut in a Siriam Garnet. Marlborough. Raspe calls this a work of Natter's.

Silenus seated playing on the double flute. Jacinth. Baron Roger.

Bust of a girl, her finger on her lips. Sard. Same collection.

CALLIMORPHUS.—Thalia standing: a mask in one hand, a thyrsus in the other. Sard. Florence.

CARPUS.—Bacchus and Ariadne on a lioness bound with wreaths. Red Jasper. Florence.

Drunken faun dancing. Antique paste. Count de Thoms.

Heads of Hercules and Iole. Calcedony. Florence, perhaps of the 16th century.

Perseus holding the Medusa's head and the harpè. Raspe.

CHÆREMON.—Conqueror in the games. Burnt Sard. Of the Lower Empire. Raspe.

CLASSICUS.—Serapis seated. Sard. Crozat.

CLEON.—Apollo Citharedus, behind him a tripod and altar, in front a helmet. Gori, once belonged to Andreini.

CNEIUS or GNAEUS.—Head of Antinous. Raspe.

Victorious Athlete rubbing himself with oil, by his side a table, with a vase and palm branch. Beryl. Lord Duncannon.

Same subject. Nicolo. Bibliothèque Royale.

Young Athlete holding a strigil. Sard. Rendorp.

Head of Brutus. Sard. Cavaliere d'Azara.

Diomed naked, armed with sword and shield, the Palladium on a cippus by him: he is seated on the ground, his mantle thrown over his arm. Sard. Denham.

Fragment of a horse—the head only.

Head of a goddess, sometimes called Sappho and Cleopatra. Sard. Collegio Romano.

Head of the young Hercules. Beryl. Strozzi.

Head of Melpomene and a tragic mask. Turbie.

Head of Mercury. Abbé Pullini. Torino.

Head of Theseus, covered with a bull's hide. The name said to be added by Pichler. Rendorp, Amsterdam.

COENUS and QUINTUS; reading KOINOY and KOINTOY.

Adonis nude, holding a javelin and leaning on a cippus; a hound by him. Onyx. Prince Lichtenstein.

Head of Augustus. Raspe.

Faun celebrating the bacchanalia: vase in one hand, thyrsus in the other, leopard's skin on arm. Nicolo. Extremely delicate work; letters very faint. L. Natter.

Figure of Pythagoras. Sard. Salinis.

CRATERUS.—Diana of Ephesus. Sard. Stosch.

CRESCENS (KPHCKHC).—Harp-player. Sard. Poniatowsky.

CRONIUS.—Terpsichore—doubtful. Andreini. Figure standing, holding a lyre, leaning against a square cippus on which is a statue of Hercules; but the work appears too late for the age of Cronius.

Perseus. Sard. Devonshire.

DALION.—Nymph seated on a sea-horse, with two dolphins.
Amethyst. The Hague. This name is probably ALLION
mis-read.

DARON.—A Janus. Sard. Crozat.

DEMETRIUS.—Hercules strangling the Nemean lion. Sard.
Marquis de Drée.

A bull. Sard. Baron von Schellersheim.

DEUTON.—Four cars racing. Ant. Paste. Stosch.

DIOCLES.—Head of a young Faun. Jasper. Berlin.

DIONYSIUS.—Head of a Bacchante. De Murr.

DIOSCOURIDES.—Head of Io: three-quarter face, fillet round the
hair, a necklace of two rows. Sard, deep intaglio.
Poniatowsky.*

Mercury Criophorus: naked and wingless figure leaning
against a column, and holding a ram's head in his hand.
Sard. Devonshire.

Mercury on a journey, with petasus, caduceus and mantle.
Sard. Lord Holderness.

Perseus resting his hand on a shield with a Medusa's head,
and holding a sword. Sard. Naples.

Diomede, Master of the Palladium. Sard, in flat relief.
Devonshire.

Diomede carrying off the Palladium. Sard cracked. The
Hague.

Head of Demosthenes, front face. Amethyst, deep intaglio.
Ludovisi.

Head of Augustus; a star in the field. Amethyst, perhaps
by Sirletti. Blacas.

Bust of Augustus, with the Paludamentum. Amethyst. Thoms.

Head of Mæcenus, formerly called that of Solon. Amethyst.
Bibliothèque Royale.

The following are also attributed to Dioscorides:—

Head of Augustus laureated. Cameo. Hamilton.

Bacchus drunken, riding on a panther, with cantharus and
thyrsus. Cadés.

* I have seen a most admirable copy of this head by Pichler, once
belonging to Beckford.

Head of Caligula. Cameo. Walmoden.

Muse. Sard. Pulsky.

Head of Julius Cæsar, front face, and lituus. Sard. British Museum.

Giant with serpent legs. Beryl. Blacas.

Hercules chaining Cerberus. Cameo. Berlin.

Hermaphroditus reclining; a Cupid playing the lyre: another the flute; a third holds a flambeau. Amethyst Zanetti.

Head of a girl. Topaz. Marlborough.

Bust of Serapis. Garnet. Caylus.

Silenus and a young faun playing the double flute. Very fine Sard. Naples.

Thalia holding a mask. Sard. Blacas.

Head of Sol radiated, front face; presented to Colbert by the Chapter of Figéac. Sard "as large as a 30-sous piece."

Natter and Torricelli have copied all the best works of this artist, some of them repeatedly.

EPITYNCHANUS.—Portrait of Germanicus or Marcellus. Sard. Blacas.

Triumph of Venus and Cupid. Raspe.

Mercury seated on an eagle. Raspe.

Bellerophon on Pegasus. Sard. Azara.

EROPHILUS.—Head of Augustus. Cameo, Green Jasper found at Trèves.

EUELPISTUS.—Chimera of two heads, and an elephant's trunk holding a caduceus.

Nemesis. Sard. Grivaud.

EUTHUS.—Silenus seated on the ground; in front are two cupids, one playing the lyre, the other the syrinx. Cameo. Altieri.

EUTYCHES, son of Dioscourides written

ΕΥΤΥΧΗΣ ΔΙΟΣΚΟΥΡΙΔΟΥ ΑΙΓΕΙΑΙΟΙΣ ΕΠΙ.

Bust of Pallas, front face, holding her robe on the breast. Pale Amethyst, deep intaglio. Marlborough or Scheller-sheim.

Phœbus in his car. Onyx. The Hague.

Head of a young Roman. Calcedony.

Minerva putting her vote in the urn at the trial of Orestes.
Eckhel.

EUHEMERUS.—Roman emperor in a cuirass. Sard. Landgraf
von Hesse.

EVODUS.—Head of Julia Titi, with diadem, curled hair, necklace,
earrings. Beryl or pale Sapphire, of extraordinary mag-
nitude. Bibliothèque Royale.

Horse's head. Sard. Baron Roger.

Bust of a Muse, the head bound with a fillet—half length.
Lippert.

FELIX, freedman of Calpurnius Severus.—Diomedes and Ulysses
carrying off the Palladium. Sard. Marlborough.

Centaur carrying two baskets. Sard. Odescalchi.

Victory naked slaughtering a bull. Raspe.

Head of Mercury. Red Jasper. Bibliothèque Royale.

GAMUS.—Hope. Emerald. Kestner.

GAURAMUS ANICETUS.—Combat between a dog and wild boar.
Bloodstone. St. Aignan. The name may be that of the dog.

GLYCON.—Venus riding on a sea-bull, surrounded by cupids.
Sard. Bibliothèque Royale.

HEIUS.—Diana the huntress, in a stiff archaic style, holding a
stag by the horn, bow in left hand. Sard. Stosch.³

Dying Amazon. Sard. Raspe.

Head of a youth, with curly hair, and tied with a fillet.
Sard. Lord Greville.

Minerva with a diadem. Nicolo. Raspe.

Ulysses and Diomedes killing Dolon. Blacas.

HELLEN.—Bust of Antinous as Harpocrates, breast partly covered
by the robe. Sard. Stosch.

Comic mask. Blacas.

Full face of young faun. EAAHNOV, doubtless name of owner.
Berlin.⁴

³ This is supposed to be the most ancient gem known, bearing the artist's name.

⁴ Head of a Bacchante, front-face,

inscribed EAAHN in very minute characters. Pale Ruby. L. Fould, formerly Bööcke.

HEROS.—Shepherd leaning on his crook. Borgia.

HOROS.—Head of Tiberius. Abbé Pullini.

Silenus. Gori.

HYDRUS.—Paris. This name was assumed by *Natter* as the Greek form of his own German appellation, which means a water snake.

HYLLUS.—The Bacchic bull, girt with ivy, above him a thyrsus. Calcedony. Stosch. The work of the bull similar to that on the medals of Sybaris.

Same bull. Sard. Lord Clanbrazil.

Ditto. The Hague and Bibliothèque Royale.

Copies of this gem are very numerous; and the same subject, though antique, often occurs with the name added in modern times.

Head of a female, called that of Cleopatra. Sard. St. Petersburg.

Youthful Hercules,—Aventinus. Onyx. Stosch.

Head of philosopher. Sard. Florence.

Triton, Nereid, and two cupids. Sard. Marlborough.

Head of a Muse, inscribed LAVR MED. Orleans Collection. Sard.

Head of Paris. Modern. Algernon Percy.

Pallas seated looking at the Medusa's head. Antique paste. The Hague.

Mask of Silenus. Sard. General Rottier. This name has been more usurped by modern engravers than even that of Aulus.

IADIS.—Diana walking and about to let fly an arrow. Beryl. Percy.

IRENE.—Man holding a cup, surmounted by a bird. Sard. Cortona Museum.⁵

LEUCON, probably the correct reading of DEUCON.

LIPASius, probably for ASPASius.—Head of Rhea. Worsley Museum.

LEUCIOS.—Victory, in a biga. Sard. Walchenaer.

Masque of a bearded Faun. Gori.

Head of Poppæa. Sard. Wackerbarth.

⁵ This is clearly the owner's name, not the artist's.

- MAXALUS.**—Head laureated of Antoninus Pius. Cameo. Gori.
The inscription suspicious.
- MENA OF DIODORUS.**—Female head with diadem. Onyx. De
Thoms. Most probably the name of the lady herself.
- MIDIAS.**—Griffin and serpent. Cameo. Caylus.
- MILESIVS.**—Apollo seated before a tripod. Bracci.
- MITH.***—Head of a horse. Sard. Berlin.
Head of an eagle. Sard. Poniatowsky.
- MORSIVS.**—Hercules carrying a bull. Denham.
- MUSICUS.**—Harpocrates standing. Sard. The Hague.
- MYCON.**—Head of an old man. Jasper. Stosch.
Head of Caligula. Jasper. Lippert.
Cupid on a lion. Nicolo. Baron Magnancourt.
- MYRON.**—Head of Muse. Sard. Berlin.
Lion passant. Sard. Blacas.
Ajax kneeling and falling on his sword. Berlin.
Apollo pursuing Daphne. Probably modern.
- MYRTON.**—Leda, the swan flying towards her. Blacas.
- NAIVS**, probably for **GNAIIVS**.—Bust of a Muse, in front a mask;
often called a Virgil. Raspe.
- NEIVS.**—Jupiter Anxur, beardless, holding the thunderbolt and
Ægis. Sard. St. Petersburg.
- NEPOS.**—Youth playing the lyre. Sard. Schellersheim.
- NESTOR.**—Bust of Cupid. Chrysolite. The Hague.
- NICANDER.**—Bust of Julia Titi, inscribed ΝΙΚΑΝΔΡΟΣ ΕΠΙΘΙΕΙ
Amethyst. Marlborough.
- NICEPHORUS.**—Mercury carrying on his hand the eagle. Onyx.
Hesse Cassel.
Man seated forging a helmet. Sard. Florence.
- NICOMACHIVS** or **NICONAS.**—Faun seated on the ground upon his
spread leopard's skin; two flutes before him. Black
jasper. Marlborough.
Head of youthful Hercules. Sard. Schellersheim.
Venus Anadyomne. Splendid Sard. Uzielli. The name
apparently a modern addition.

* Gems with these letters are of King Mithridates, but on no sufficiently assigned to the dactyliothea cient grounds.

NILES (NELLON).—Head of Hadrian. Raspe.

NYMPHES.—Standing warrior, with one hand on a tree, the other on his helmet placed upon his shield, which is set on the ground. Sard. Florence.

ONIAS (ONHIAE EHOIEI).—Muse holding a lyre, and leaning on a base supporting a Cupid. Antique paste. Florence.

Head of Hercules, laureated. Sard. Blacas.

Head of Apollo. Sard. Cheroffini.

Drunken Bacchus. Lippert.

Ulysses carrying his casque. Sard. Thoms.

ONESIMUS.—Jupiter Conservator. Van Hoorn.

Head of Minerva, like the Pallas of Velletri, said to have been found at Forli; but is modern.

OSIUS.—Head of Apollo. Beryl. Devonshire.

OSION.—Head of Apollo crowned with wheat-ears; behind it a lyre and star. Onyx. Pallazzi.

Head of Agrippina. Nicolo. Raspe.

PAMPHILUS.—Achilles seated on a rock, playing the lyre. Amethyst. Bibliothèque Royale.

Achilles bending backwards and playing the lyre. Sard. Devonshire.

Theseus killing the Minotaur.

Head of Junius Brutus. Stosch.

Youthful Hercules. Sard, modern. Portalis.

Cupid coming to the rescue of Psyche caught by the foot in a trap. Sard. British Museum.

PANAEUS.—Pan assaulting Venus as she is leaving the bath. Sard, Caylus. ΠΑΝΑΙΟΝ ΑΦΡΟΔΙΤΗ. (Probably implying that it was a copy of the picture by that painter.)

PAZALIAS, the signature of Passaglia, an excellent Roman artist of the last century, and a lieutenant in the Papal Guards.

PERGAMUS.—Faun dancing. Stosch.

Hercules carrying a bull. Stosch.

Head of Nicomedes IV. Paste. Poniatsowsky.

Heroic head. Stosch.

Bearded head. Stosch.

PETROS.—Head of Caracalla. Millin.⁷

PHARNACES.—Seahorse. Sard. Naples.

Capricorn. Amethyst. The Hague.

Nemesis standing, holding a bridle.

Boar crouching amidst reeds.

Head of Mercury. Red Jasper.

Lion Passant. Sard. Lord Greville.

PHILEMON.—Theseus regarding the Minotaur extended on the ground, the club in his hand. Sard found at Rome. Vienna.

ΦΙΑΗΜΩΝ ΕΠΙΟΙ. Head of a faun, crowned with ivy, the deerskin on his shoulders. Antique paste. Strozzi.

Hercules chaining Cerberus. Onyx. Lippert.

Hercules strangling the Nemean lion, by Ant. Pichler.

Onyx. Lord Clanbrazil.

Head of a bull. Bracci.

PHILIPPUS.—Head of Hercules laureated. Florence.

PHILOCALUS.—Head of youth, crowned with olive.

PHILODESPOTES.—Tragic mask and two fishes.

PHILOLOGUS.—Two dolphins. Red Jasper. Seen at Bezestein.

PHOCAS.—Athlete holding a palm. Jacinth. Caylus.

PHOCION.—The head bearing this name with that of Pyrgoteles is known to be the work of Alessandro Cesati.

PHOILAS.—Bacchante. Sard. Schellersheim.

PHRYGILLUS.—Cupid with large wings creeping out of an egg, with a shell in his hand. One of the earliest inscribed intagli known. Sard. Blacas.

PHYLAX.—Actor or philosopher. Sard. Gori, perhaps mis-read for Scylax.

POLYCLEITUS.—Diomedes master of the Palladium, seated on a base, at his feet the slain priestess. Sard. Florence.

Cupid on a lion. Cameo. Gori.

POLYCRATES (ΠΟΛΥΚΡΑΤΗΣ ΕΠΙΟΙΕΙ).—Cupid and Psyche. Garnet. Marquis de Gouvernet.

⁷ This name is clearly due to the amusing error of some mediæval possessor, who has mistaken the curly-headed truculent visage of the Roman tyrant for the traditional portrait of the fiery Apostle, which in truth it closely resembles.

- POTHUS.—Three masks. Millingen.
- POTIOLUS.—Four masks. Red Jasper. Stosch.
- PROTARCHUS (ΠΡΟΤΑΡΧΟΣ ΕΠΟΙΕ).—Cupid riding on a lion and playing the lyre. Cameo. Florence.
- PLUTARCHUS.—Bust of Cleopatra. De Murr.
- PYGMON.—Faun dancing and holding a crater. Antique paste. Florence.
- PYLADES.—Mount Argæus, surmounted by an eagle holding a wreath. Red Jasper. Palazzi.
- PYRGOTELES.—Head of Alexander. A splendid work, but Clarac speaks hesitatingly of its authenticity. Blacas.
- Head of Medusa. Amethyst fragment. Blacas.
- Head of Alexander covered with the lion's skin. Cameo, but suspected. Mayence. This name has been placed on antique copies of his works, as on a Sard of indifferent execution found at Rome, 1788, representing Hercules with Iolas killing the Hydra.
- QUINTILLUS.—Neptune in a car drawn by two sea horses, in one hand a dolphin, in the other his trident. Beryl. Ludovisi.
- Mercury standing with his foot on the prow of a vessel. Sard. Poniatowsky.
- RUFUS.—Head of Ptolemy Physcon. Sard. Raspe.
- Aurora guiding the Solar car. Cameo, inscribed ΠΟΡΦΟΡΕΙΟΙ. St. Petersburg.
- SATURNINUS.—Antonia the younger. Cameo. Seguin.
- SCOPAS.—Apollo Citharedus, bust. Sellari. Cortona.
- Œdipus and the Sphinx. Stosch.
- Head of a Roman. Sard. Leipzig.
- Head of Epicurus. Sard. Count Butterlin.
- Young woman at her toilette. Caylus.
- SCYLAX.—Eagle's head. Sard. Algernon Percy.
- Head of Pan, full face. Amethyst. Blacas.
- Hercules Citharedus. Sard. Baron Roger.
- Head of C. Antius Restio. Sard. Marlborough.
- Male portrait. Sard. Marlborough.
- Head of a bald man. Garnet. Baron Roger.
- Man standing holding a bow. Sard. Baron Roger.

Mask of Satyr, front face. Sard. Baron Roger. These three last very doubtful.

Combat between a giant and griffin. Sard. St. Petersburg.

SCYMNUS.—Bacchus followed by a panther.

SELEUCUS.—Mask of Silenus, crowned with ivy. Sard. Cerretani at Florence.

Hermes of Priapus. Square Emerald. Thoms.

Cupid and a wild boar. Amethyst. Wordlidge.

Head of Hercules. Blacas.

Unknown portrait. Fine work. Stosch.

SEVERUS.—Hygea offering a bowl to a serpent.

Plasma. Slade. Probably the owner's name.

SLECAE or CAECAE (Cascae).—Youthful warrior holding a sword; perhaps Theseus contemplating the sword of his father. Stosch.

SOCRATES.—A comic actor. Onyx. Roger.

Fortuna Panthea. Black Jasper. Borré.

Comic actor leaning on a crook. Cameo on Oriental Sardonyx of three layers. Roger.

SOLON.—Head of Medusa, eleven serpents in the hair. Calcedony. Strozzi, now Blacas. Found in a vineyard on the Monte Celio, near S. Giovanni e Paolo. There exists a fine copy made by Costanzi for Cardinal Polignac, 1729. One by Madame Preissler, smaller size; another by Jeuffroy, on Amethyst.

Diomedes, master of the Palladium. Sard. Blacas.

Portrait of a bald man. Sard. Ludovici.

Head of Mæcenæ. Topaz. Florence.

Cupid standing: a mediocre gem. Sard. Roger.

Bust of a Bacchantes. Sard. Stosch.

Emperor leaning on his shield. Raspe.

Head of a Faun. Calcedony: doubtful.

Head of Hercules, laureated, front face. Stosch.

Livia as Ceres, veiled bust. Sard. Gori.

Victory Apteros sacrificing a bull: fragment. Sard. Stosch.

SOSTHENES, formerly read SOSICLES.—Head of Medusa. Calcedony. Carlisle. This was considered by Pichler as superior to that by Solon.

Head of Junius Brutus. Sard. Lord Aldborough.

Head of Minerva.⁸ The Hague. Is a copy by Natter, *N* under the head being his usual mark: for though he copied many of the finest antique gems, he always sold them as his own works, and his Minerva, and Hercules strangling the Nemean lion, can be compared with the best productions of the ancients.

SOSTRATUS.—Bacchic Genius in a car drawn by two panthers girt with ivy-wreaths. Cameo on an Agate of two layers, half the stone lost. Devonshire.

Victory sacrificing a bull. Sard. Devonshire.

This Collection possesses almost all the known works of Sostratus.

Victory in a biga. Cameo, once belonging to Lorenzo dei Medici; now Naples.

Bellerophon watering Pegasus. Sard. Raspe.

Meleager and Atalanta. Cameo. Devonshire.

Nereid riding on a marine griffin. Sard. Lippert, who also ascribes to this artist an Europa and a Diana Taurica.

STEPHANUS.—Man in a biga. Sard. Dubois.

Pegasus. Gori.

TEUCER.—Head of Antinous. Raspe.

Faun holding a wreath. Sard. Carlisle.

Seated warrior, a helmet in one hand, a spear in the other. Winckelmann.

Hercules and Iole; the hero nude, seated on a rock covered with the lion's skin, draws Iole towards him. Amethyst. Florence.

Copies of this by Brown, Burch, and Carpus, are known.

It is also admirably copied in the Poniatowsky series, where it is signed ΕΛΠΗΝΟΡΗC.

Head of Minerva. Sard. Lippert.

Head of an old man. Amethyst. The Hague.

THACETAS.—Hercules and Omphale. Raspe.

THAMYRUS.—A winged Sphinx scratching her ear with her hind paw. Sard. Vienna.

⁸ Probably *Medusa*. See Goethe's remarks on the gems of Hemsterhuis.

A similar Sphinx, but without name. La Turbie.

Helmeted warrior standing at the side of his horse. Modern stone, where the name is written THAMYRIS. Prince d'Isseberg.

Child seated. Cameo, of which many repetitions are known. Caylus.

THYOSUS.—Altar and eagle. Paste. De Thoms.

TRYPHON (ΤΡΥΦΩΝ ΕΠΟΙΕΙ).—Marriage of Cupid and Psyche: infant forms, the latter holding a dove, conducted towards the nuptial couch by two Cupids and Hymen bearing a torch. Cameo, the figures flesh-colour, on a black ground of Sardonyx. Marlborough.

The same subject, but of inferior work. Naples.

Cupid riding a lion. Sard. The Hague.

Triumphal procession. Jasper. Raspe.

Combat of Æneas and Diomed. Sard. Caylus.

Of these artists the most illustrious for their ancient reputation or for their works at present in existence are the following.

Admon.	Cneius.	Philemon.
Aelius.	Dalion.	Phrygillus.
Aetion.	Demetrius.	Polycletus.
Agathemerus.	Dioscorides.	Polycrates.
Alpheus.	Epitynchanus.	Protarchus.
Ammonius.	Euplus.	Pygmon.
Amphoterus.	Eutyches.	Pyrgoteles.
Anteros.	Evodus.	Scopas.
Antiochus.	Felix.	Scylax.
Apollodotus.	Heius.	Scymnus.
Apollonides.	Hellen.	Seleucus.
Apollonius.	Hyllus.	Sclon.
Aspasius.	Meidias.	Sosthenes.
Athenion.	Neisus.	Sostratus.
Aulus.	Oncas.	Teucer.
Axiochus.	Pamphilus.	Thamyrus.
Carpus.	Pergamus.	Tryphon.
Cronius.	Pharnaces.	



Satyr surprising a Sleeping Nymph. Signet of Aspasius: Roman. Agate.

In the above extract from Clarac's list I have omitted some few names which he describes as doubtful, and which appear to me rather to indicate the name of the owner of the signet than that of the engraver. And this is probably the case with many even of those here given, especially where the gem is an intaglio intended only for the sealing and authentication of documents. The only artists' signatures (first supposing the work of them antique), which can be certainly relied upon are such as are accompanied by the word ΕΠΟΙΕΙ ("fecit" in modern parlance), or are inscribed on a tablet in a significant manner, or else are engraved in such minute characters at the side of the composition as only to be recognised by a careful search, and which, purposely as it were, avoid all interference with the proper design of the stone. The letters ΛΙΘΟ following some of these names are usually read as an abbreviation of λιθογλυπτης, or gem-engraver; but such an artist was always styled in his own times δακτυλιογλυπτης, as the first appellation would not have been sufficiently definite, applying equally well to any sculptor or even stone-mason. Again, from the large size of the characters in such inscriptions it is plain that the name is merely that of the owner of the intaglio, and that ΛΙΘΟ stands for the "gem or signet of such a one," and properly serves to authenticate the impression on the wax or clay. On camei on the contrary, such names being usually left in relief in the same layer of the stone out of which the figures themselves are cut, doubtless designate the artist himself, in accordance with the common practice of antiquity

of inscribing bas-reliefs and statues with the names of their sculptors. I have myself examined the following intagli supposed to bear the names of their engravers, on which I shall make a few observations.

1. A helmeted male portrait, ΑΛΛΥΩΝ for *Allion*, reading γ for ι as the fourth letter, an error not likely to have been committed by a *modern* engraver, who would necessarily be on his guard against any blunder. This gem was undoubtedly antique. Sard. Pulsky.
2. A minute dancing faun, ΑΥΑΟΥ in very small letters. Sard. Böcke. For this gem £100 had been refused by the owner.
3. A head of Ceres, ΑΥΑΟΥ in microscopic letters. Once in the Webb Collection, but doubtful. Rhodes.
4. A Satyr surprising a sleeping Nymph. On a black and white Onyx, extremely minute and delicate work, in the exergue ΑΧΙΑCΙΟΥ apparently antique; but the importance given to the inscription by the large size of the letters proves it to be the name of the owner. Rhodes.
5. Magnificent front-face of a Bacchante. On a large pale Ruby, inscribed ΕΑΛΗΝ in the finest possible characters at the side. Böcke.
6. Fine bust of a Bacchante. Large Amethyst, inscribed ΝΕΑΡΚΟΣ,* probably the owner's name. Pulsky. I possess an excellent intaglio of Apollo Delphicus, on which is scratched in antique but unfinished letters X. ΝΕΑ, apparently the same name abbreviated.
7. A head of Neptune, front-face, ΝΑΟC perhaps for *Solon*, but doubtful. Emerald or fine Beryl. Herz.
8. Bust of a Muse, inscribed ΔΙΟΞΚΟΥΡΙΔΟΥ in somewhat larger letters than appear on the other gems from his hand. Sard. Pulsky. The intaglio is certainly not equal in

* Or, perhaps, an addition of some name would be spelt Nearco), has Italian falsifier, who, misled by the thus blundered the name Nearchus. usage of his own tongue (where the

merit to what we might have expected from so famous an artist; but the name gave it so high a value that it was purchased by Count Wickzay for 800 gold ducats.¹⁰

9. Bust, nearly full-faced, of a Roman, probably Mæcenas. An admirable intaglio, very deeply cut. ΑΠΟΛΛΟΝΙΟΥ in small neat characters indubitably antique. Jacinth. Rhodes.
10. Naked Faun carrying a large vase on his shoulder and ascending a hill. Of the finest and most minute execution, in the exergue ΚΟΙΝΟΥ in letters almost microscopic. Sard. Rhodes. Clarac assigns a Faun on Nicolo, inscribed with the same name, to Natter.¹



Faun with Urn. Finest Greek Style. Sard.

ON THE CATALOGUE OF ANCIENT GEM-ENGRAVERS.

Taken partly from Visconti, 'Opere Varie,' II. 115.

A catalogue of ancient gem-engravers, arranged according to their several epochs, would certainly form an extremely instructive and curious part of any treatise on this study; but the difficulty of drawing it up with any sure foundation, based upon actual documents, or even upon plausible conjectures, surpasses all imagination. This difficulty arises, first, from the deficiency of notices left to us by ancient writers in this

¹⁰ 350L.

¹ This sard, however, is, as far as concerns the intaglio, an indubitably antique work of the best Grecian time, although the inscription has

probably been added by a modern hand; such, at least, is the opinion of a most experienced connoisseur, to whom the matter was referred.

branch of the history of art, and from the absence of all chronological indications in the greater portion of the gems marked with their authors' names; secondly, from the ancient practice of placing the original artist's name even upon copies from his works; and lastly, from the actual forgery of these names—a thing not uncommon among the ancients themselves, but of the utmost frequency amongst the moderns.

The intrinsic difficulty of the task is augmented by another and extrinsic one: that is to say, the want of all critical knowledge in the two archaeologists, Stosch and Bracci, who have undertaken to collect and elucidate all gems bearing the artists' names. Such blind guides easily lead astray all who follow them with any degree of reliance upon their knowledge.

Materials for a critical history being so scarce and so uncertain, it will be the best plan to make but one class of the artists before the age of Alexander. Amongst these, Admon can have no place, his name being written with the ω of the form not used till after that epoch. The stiff manner of the Diana of Heius would make us regard him as anterior to the times of Praxiteles; but the name $\text{HEIO}\Sigma$ may be read as a trisyllable Eeus, for if we suppose the first letter to be merely an aspirate, then we should not find the final Σ used, according to the analogy of the Athenian inscriptions of that date, and of certain legends on the medals of Philip.

The only other engravers who have a right to appear in this division are Mnesarchus, named as the father of Pythagoras—an historical notice which also incidentally proves the high antiquity of this art, as, even at that early period, furnishing a distinct profession; Thamyras and Phrygillus, who show by the stiffness of their style that they must have flourished before the age of Alexander. The characters € , C ,

and ω , used in the names of Aetion and Agathemerus, by their recent shape cause us to refer these two artists to more modern periods; and the gem by Philemon, in the Vienna Collection, besides exhibiting the lunar-shaped sigma, C, in the name, has nothing whatever of the Archaic manner in its treatment.

In the next period, from Alexander to Augustus, Visconti suspects that all the works signed with the name of Alexander are to be assigned to Alessandro Il Greco, because the composition of the design shows a certain departure from the antique manner. For instance, amongst other details, the kind of fillet that appears on the back of his lion is never seen in truly ancient works, except upon victims, and such the lion was not; again, the abbreviation $\Lambda\Lambda\Xi\Xi\Lambda\Lambda\text{N.E.}$ for $\Lambda\lambda\epsilon\gamma\alpha\nu\delta\omicron\rho\omicron\varsigma\ \epsilon\pi\omicron\iota\epsilon\iota$ is without any precedent, and even contrary to the usage of those times; and lastly, Vasari expressly mentions, amongst the works of Alessandro Cesati, a cameo of a child and a lion.

Pamphilus and Pharnaces are of quite uncertain date; nor is it probable that Polycletus of Sicyon was the author of the gem inscribed with that name, for his style as the pupil of Agelades, though correct, would still be somewhat stiff and exaggerated from his early date, anterior to Praxiteles. As however Pamphilus and Polycletus were equally famous—the one in painting, the other in statuary—it may be plausibly conjectured that the intagli inscribed with these names were copies of famous works by these masters, either pictures or bronze figures. The gem signed Apelles (falsely read Apsalus), might likewise be adduced in support of this theory.

Gems bearing the name of Pyrgoteles may similarly be all doubted with justice; and here an instance of a stone may be quoted, of incontestable antiquity, both as to the intaglio and

the name upon it. It is a Carnelian found near Rome in 1788; its subject, Hercules and the Hydra. The work was only mediocre; it was consequently judged by Visconti to be an ancient copy of a gem by Pyrgoteles. It passed into the Trivulzi Cabinet at Milan.

The age of Tryphon is fixed by the epigram of Addeus, a court-poet of the Ptolemies, already quoted under the head of "Beryl."

Of the Roman period, all the artists must be classed together from the times of Augustus to the commencement of the decline of art under Septimius Severus; for here, unless the date of the work is fixed by its presenting historical portraits, or else by notices of the artist in ancient writers, we are completely at a loss for other guides during the whole of this period; for if we take the mere excellence of the work itself, as the ground to form our judgment upon, the intaglio head of Antoninus Pius, in the Museum Capo di Monte, is by no means inferior to the most finished portraits of the first Cæsars.

In this same category ought likewise to be classed all the engravers having Roman names, such as Gnæus, Ælius, and Felix. Whatever may have been their native country, the excellence of their works ranks them in the Greek school, and they themselves adopt it as their own by signing their names in Greek letters and after the Greek fashion, omitting however that of their family; but for this there was a sufficient cause. These artists were doubtless Greeks, and the freedmen of great nobles and of the emperors, whose family name they assumed, according to the invariable rule, on their manumission; and hence we may conclude that Gnæus flourished under Pompey, Ælius in the reign of Hadrian, and similarly for the others who sign their Roman *gentile* names in Greek characters. Probably no work of Dioscorides equals

in sublimity the youthful Hercules of Gnæus in the Strozzi Cabinet; and this engraver, together with Aulus, Quintus, and Lucius, must be numbered amongst the Greek artists of the same period. An antique paste of the Barbarini Collection has the inscription ΑΥΑΟC ΑΛΕΞΑΝΔΡΟΙΕΙ; and hence we may conclude him to be the brother of Quintus, who upon another gem also styles himself, after the Greek fashion, "son of Alexander." This latter name of Quintus is probably the ΚΟΙΜΟC given by a mistake of the reading of the signature by Stosch and Bracci. Agathangelus is a false name added by a modern hand to an antique intaglio, according to Vettori, in his 'Dissertatio Glyptographica.' Agathopus and Epitynchanus also belong this class. There can be little doubt that these are the two persons bearing the same names described as "aurifices," or jewellers, in the sepulchral inscriptions of the household of Livia. Their epoch too is fixed by the intaglio head of Pompey the younger, on a gem in the Florentine Collection, engraved by Epitynchanus, and a cameo of Germanicus by Agathopus, belonging to the Strozzi. Probably a magnificent sard, the combat of Bellerophon with the Chimera, in the Azara Cabinet, signed ΕΠΙ, is a work of the former engraver. I have also seen an admirable head of Germanicus on a very fine ruby-coloured Sard, also signed ΕΠΙ. This gem was once in the collection of Beckford, and had all the appearance of antiquity.

Of altogether uncertain date are Allion and Amphoterus; for as to the portrait of Rhetemalces, ascribed to the latter, it is extremely uncertain whom it really represents. The same may be said of Ammonius and Onesas. Concerning Apollonius and Athenion we have no sure data, yet as no characters of the more recent form, such as the Ω, appear in their signatures, this consideration, coupled with the superiority of their works, would induce us to place both in the first times of the

Roman empire.² Aspasius also may be ranked among those of an uncertain but yet early period. Although his name is not engraved in such elegant characters as those of the two just mentioned, yet the fact of each of his three known works being executed in red Jasper would lead me to the same judgment; for assuredly the luxury of the Roman times would not have allowed such an artist to work in so common a stone as it had then become.

As for Aulus, the variety both of manner and of merit observable even in the indisputably antique gems, signed with this name, must be assigned either to forgery, or else the name, even when genuine and antique, may have been added to ancient copies of his actual works. The best and most authentic of all his productions is the Strozzi head of Esculapius, a profile of sublime beauty, where the name appears on a tablet. Whoever compares this head with the other works bearing the same signature will find it difficult to persuade himself that they are all originals from the same hand.³

Acmon is known to us by a single cameo, a portrait of Augustus, a profile—laureated head upon an onyx of two layers, Sard and Sapphirine, in the De la Turbie Cabinet. The work of this cameo is executed with infinite freedom and facility, so as to appear done entirely by the hand and not by the wheel—a peculiarity observable in many other antique camei. The name ΑΚΜΩΝ is engraved beneath the bust. From his style he may be concluded a pupil of Dioscorides.

Cronius was apparently anterior to the times of Augustus, for it is probable that Pliny followed the chronological order in placing his name between that of Pyrgoteles, the contempo-

² The age of Apollonius is fixed by his signature on the portrait of Mæcenæus.

³ So common a name as Aulus was doubtless borne by different artists and at different dates.

rary of Alexander, and that of Dioscorides, the contemporary of Augustus. The name of Cronius appears at the side of a standing figure of Terpsichore, a design afterwards repeated by Onesas and Allion, whence we may conclude that these two latter came later than Cronius; unless indeed, which is very probable, the intagli of all three are but copies of some famous statue.

Dioscorides is the most famous of all the ancient engravers. There is however a great variety in the style and in the merit of the gems distinguished by his name. Comparing together the impressions of the two Mercuries by him, any experienced eye will detect at once that they certainly are not productions of the same hand. The most admirable of all his works is the Head of Io, which cannot be reproduced exactly in the plaster-cast on account of the under-cutting of the nose, the intaglio being a three-quarter face. It is far superior, both in delicacy and correctness, to the Demosthenes by the same artist in the Piombino Cabinet. This last is upon a splendid Amethyst, but shows somewhat of stiffness and hardness in its manner. Both these intagli are much more deeply cut than is usual with antique gems, and differ in this respect from his "Diomedes, master of the Palladium," which is in flat relief. It is however very probable that the difference of style observable in his works may arise from the distant periods of his professional life at which they were respectively executed: thus his Demosthenes may be set down as one of his earliest productions, for certainly there is a perceptible increase in freedom of touch between his portrait of Julius Cæsar and that of Mæcenæ, in which the elderly look of the latter would indicate the lapse of many years between the execution of the two, even if we allow, what was most probably the case, that the head of Julius was engraved during the last years of the Dictator, and for

his special use as a private signet. The native country of Dioscorides is known from the inscription on the Minerva of the Prince di Avella at Naples, which runs thus:—"Eutyches, son of Dioscorides of Aege, made this." This Aege was probably the town of that name in Aeolia of Asia Minor.⁴

Hyllus, known to us by his grand Dionysiac Bull, treated in a style similar to the type of the autonomous coins of Sybaris, may for this very reason be placed among the artists anterior to the Roman empire.

Of Antiochus the date is quite unknown. The Head of Sabina, ascribed to him by Bracci, does in reality read Antiochis, the name of the lady it represents. To the age of Septimius Severus we may safely assign Gauranus, Carpus, and Apelles, absurdly read Apsalus by Stosch.

Amongst those earlier than the reign of Augustus we may reckon Apollodotus, for his style, though not altogether accurate, is yet of considerable simplicity; Plutarchus, on account of the beauty of the characters of his signature on his cameo at Florence, a design also treated with considerable talent; and Teucer, on account of the purity of his style. Caecus is but the false reading of *Cascae*, the owner's name. Lucius, from his name, belongs to imperial times.

To return to Roman artists belonging to the Greek school,

⁴ This form of the artist's signature upon a gem is quite without precedent. Visconti appears to entertain no doubt of its authenticity, but it seems to me to have been suggested to some Italian gem-improver by the inscription on the splendid mosaic found at Pompeii in 1764, representing a comic scene, 'Dioscorides of Samos made this.' This picture is the very perfection of the art of the mosaic worker, and may be assigned with some confidence to the great engraver himself if we bear in mind the versatility of genius of the old artists, as well as rare occurrence of the name; the same peculiarity of spelling occurs in this also as upon the gems, where we always find Dioscourides, not Dioscorides. As the early mosaics were principally composed of tesserae of hard stones, and not exclusively of glass, like those of Byzantine date, there is a kind of relationship between mosaic and the art of gem-engraving, by which he subsequently became illustrious.

such as Quintus, Aulus, and Gnæus. The finest works of the last are his young Hercules, his Cleopatra, one in the Strozzi, the other in the Kircherian Collection at Rome. Both are examples of most exquisite skill. His Juno Lanuvina, or Head of Hercules covered with the hide of the Bull of Marathon, is indeed an antique intaglio, but the name Gnæus is a forgery of Ant. Pikler.

Of the period of the Lower Empire, the famous Sapphire of Constantius, published by Ducange, is now in the Rinuccini Cabinet at Florence. To this epoch must be assigned Chaeremon, Phocas, Nicephorus, and Zosimus, if indeed the works bearing these names are originals, and not copies of more ancient gems. As for the names themselves, they afford no argument as to the date of the artists, having been borne in the early as well as in the later times of Greece.

The large size and beauty of the pieces of Sardonyx used for the Byzantine camei representing Scriptural subjects, is a proof that the decay of the empire had not rendered these stones more rare or more difficult to procure—a fact confirming the opinion that the supply of this material came from India, with which a very active trade was kept up during the whole period of the Greek empire.



The Julius of Discorides. Sard.

THE ANTIQUE GEMS OF THE BRITISH MUSEUM.

These hidden treasures of the great National Collection, a portion of its contents so highly interesting and yet so little

known, may be briefly noticed in this place, inasmuch as amongst them will be found some gems inscribed with the signature of the artist, which may be ranked amongst the finest in existence. The collection is small in point of numbers, consisting of about 500 rings and unset stones; the former arranged in five cases and mounted in gold, with some few in silver settings. They come from the bequests of Townley, Payne Knight, and Cracherode; the collection of the latter containing indeed no work of very great importance, but still characterised throughout by his usual excellent taste in the selection of nothing but what is to be admired either for the elegance of the subject or the beauty of its execution; or lastly, for the fine quality of the stone itself. For example, to take a single instance in this casket, an Emerald, engraved with a Cupid teasing a goose with a bunch of grapes, is in every respect the most charming intaglio that can be possibly imagined, and equally graceful is the Cupid mounted on a dolphin, cut on a fine Aquamarine.

But the Townley gems number in their ranks some half dozen intagli not to be surpassed by any in the most famous cabinets of Europe. First among these is the Julius Cæsar of Dioscorides, a front-face portrait on Sard, the brows encircled with a laurel wreath (its leaves of unusual size) the face full of life and energy, but hard-featured, haggard, and expressed with all the unflattering fidelity of a photograph; and evidently taken but shortly before the close of his life. The name of Dioscorides is engraved at the side in the most minute and elegant characters, indubitably of the same time as the intaglio itself. Far superior to this in beauty of subject, though yielding to it in historical importance, is the front-face bust of an empress, probably Livia in the character of Abundantia, with veiled head, and holding a cornucopia

It bears the letters EMI, and therefore is with little doubt from the hand of Epitynchanus, the author of the famous head of Germanicus, in the Paris Cabinet. The stone is a fine dark Amethyst. Perseus standing and holding the harpé in one hand, in the other the Gorgon's head, upon a large Sard, is a figure of careful and minute finish. Of Aspasia we find here two works: the first, a full-face of the bearded Bacchus on red Jasper, very deeply cut, and of the most vigorous execution; the name inscribed in small neat letters across the breast of the bust. The work is worthy of the age of Augustus; still there is something in the aspect of the stone itself that appears to tell against its antiquity. The other intaglio by the same artist, representing an Athenian warrior supporting a dying Amazon, her shield and battle-axe cast on the ground, is an exquisite design of high finish, upon Amethyst. A full-face portrait of a young man (apparently one of the family of Augustus) by Aelius, upon a Sard, is an admirable work, both for expression and execution, and undoubtedly antique. Cupid advancing to the rescue of Psyche caught by the foot in a trap, engraved by Pamphilus on a most splendid ruby coloured Sard, is a lovely composition, but is either the work of some eminent Italian artist of modern times, or else the stone has been re-polished; for it certainly does not present an antique surface. There is also an intaglio by Heius; the work, though antique, is by no means of the archaic style characterising the famous Diana by the same artist, which Visconti considered to be the oldest gem in existence inscribed with the engraver's name. Heius however was a common name among the Sicilian Greeks, and may have been borne by more artists than one, and at different dates. A head of a laughing faun (strongly resembling the portrait of John Wilkes), a face beaming with mirth and mischief, by Ammonius, whose signature, cut in

the finest characters and close to the edge of the gem, is almost imperceptible, closes this list of inscribed intagli. The Jacinth, on which beams forth this embodiment of fun and frolic, is the most splendid stone of the kind for colour and lustre that has ever come in my way.

Many also of the uninscribed intagli are equal to any of the above in artistic merit. Worthy of special notice amongst these, is a sacred hawk, on Sard, in the Greco-Egyptian style, and though of smaller size, by no means inferior in execution to the famous gem of the same subject in the Berlin Cabinet, an intaglio always quoted as the masterpiece of that period of the art. Another, of the highest interest to numismatists, is a Sard engraved with the human-headed bull with the legend ΓΕΛΛΑΣ in the field, done in a very ancient manner, and exactly resembling the type of the early coins of that city. A Medusa's head in profile is of uncommon merit. A female sacrificing to Priapus is equally remarkable for the beauty of the execution, and for the singularity of the design. This part of the collection also boasts of many fragments of gems of extraordinary dimensions, and still preserving portions of engravings whose wonderful beauty only serves to make us the more feel the irreparable loss of the entire work. I may single out for particular mention a large brown Sardonyx, bearing the lower portion of an exquisite female profile, backed by a head of Ammon, which has apparently formed the neck-piece of the helmet originally covering the head of the goddess; a work in very flat relief, and of the best Greek period. Another preserves a portion of the portrait of Caracalla, of the size of his largest medallions, and most characteristic and life-like in the expression of his truculent physiognomy.

The collection is also peculiarly rich in Gnostic gems, most of the finest examples that have been published at various times (many of them of a degree of excellence in point of art

far beyond any that I had met with elsewhere), having gradually found their way from different cabinets into this haven of unbroken rest. Of these, as well as of that rarest class of them all, the intagli of orthodox Christian origin, a detailed notice will be made under the proper heads.

The scarabei likewise are of especial interest, both for subjects and materials; as regards the latter point, may be noticed one quite unique, being formed out of a Carbuncle of the most perfect quality, and hardly to be distinguished from the finest Ruby.



Hydraulia. Placma.

As for gems still retaining their antique settings this collection cannot be matched by any in Europe: it certainly surpasses in this department those of the Uffizi and of the Museo Borbonico. Here too, in accordance with the general rule, the artistic merit of the gem is, in most instances, in the inverse ratio to the value and singularity of the mounting. One remarkable exception however must here be noted, a magnificent intaglio of Hercules slaying the Hydra, very deeply cut on a rich Sard, and set in a massy gold ring, of the form fashionable during the Lower Empire. Another intaglio of very fine work is to be seen set in a broad bordered oval brooch, the surface of which is ornamented with filigree arabesques in the most elegant Greek taste. This unique example of the employment of an intaglio as the decoration of a fibula was discovered in Sicily; and both the intaglio and its setting are evidently coeval, and date from the most flourishing times of Syracusan art. The wonderful lion-ring of the Princess di Canino, the masterpiece of the

Etruscan goldsmith, has lately been added to the list of these treasures. I observed also a large and massy gold signet with the device cut upon the metal, an undoubtedly authentic instance of this much-forged class of antiques. Here also is preserved one of the most tasteful adaptations of an antique gem to mediæval usages that has ever come under my notice: a pretty bust on Sard, set in a gracefully shaped ring of the fourteenth century, as appears from the Lombardic legend surrounding the bizzel and covering the shank. Some astrological emblems introduced upon the shoulders of the ring plainly indicate its Italian origin.

The Camei of this collection although presenting none of great importance for their volume, have yet several in their number that deserve notice on account of their beauty and their authenticity. Amongst these may be pointed out as worthy of special consideration a head of Serapis, a front-face, in half relief; profile portraits of Domitian and Julia side by side; and a fragment of an Europa on the Bull. This last, together with the two horses, the remains of a victory in a biga, surpass in spirited design and delicate execution any antique works of this class that I have ever examined. Another, a lion passant cut in low relief out of the red layer of a Sardonyx, a highly finished work of the best period of the art, has its value still further enhanced by the letters LAVR MED. engraved upon the field; showing that it had once formed part of the collection of Lorenzo dei Medici. The stone, set in a ring, has its surface covered by a glass like that of a watch, to protect it from injury: a proof of the value set upon it by its first possessor. A gold snuff box, presented by Pius VII to Napoleon at Tolentino, has the lid set with an excellent antique cameo in flat relief on a beautiful Onyx of several layers; the subject, a young faun riding on a goat, and expressed with much spirit and minuteness. This precious antique was doubtless selected to adorn

the presentation box, as being held far superior in value to the diamonds usually employed to ornament gifts of this description. The number of loose scarabei of all varieties, which unfortunately my time did not allow of my examining, is very large, and is said to include many of the greatest interest both for subject and for workmanship. The Babylonian Cylinders, as might be expected in the Museum of the nation par-eminence of Oriental travellers, form the most complete and extensive collection as yet made of that class of engraved stones; and the same may be said of the Indian and Persian stone seals lately displayed in the gallery containing the antique glass. I also looked with much interest mingled with amusement at the famous Flora, the Cameo which first brought Pistrucci into notice, having been palmed off upon Payne Knight and the first cognoscenti of his day as one of the finest productions of ancient Greek art. It speaks little for the practical knowledge of these collectors that they should have been thus imposed on by this head; for the very first view of it would now cause it to be referred at best to no earlier epoch than that of the Cinque-Cento school. The face, broken off at the neck² to augment the colour of antiquity, is very much under-cut, so as to be in three-quarters relief, and the hair adorned with a garland of red roses, in execrable taste and clearly stamping the date of its execution. In other respects the work is fair enough, but certainly not superior to the ordinary run of the camei of the Italian Renaissance; and infinitely below the expectations I had formed of so highly lauded a performance.

It were much to be desired that at least the camei, together with the intagli on opaque stones—accompanied by their casts in plaster of Paris—might be exhibited in the public part of

² On this section of the neck setting, so as to be able at pleasure Pistrucci is said to have engraved to claim the authorship of the his name, which is concealed by the work.

the Museum, arranged under glass and close to its surface, as is done in the Bibliothèque Impériale. The work on the transparent stones, it is true, cannot be well examined unless the light be suffered to pass through them by an arrangement for raising the cases in which they are fixed similar to that adopted in the Museum at Naples, where, by turning a screw, the trays can be raised or lowered so as to admit the light at any angle required for the examination of the cutting. If this, however, should be impracticable *here* from the want of side windows in the public galleries, all amateurs would be well content with the opportunity of inspecting these gems merely ranged horizontally beneath the eye, if at the same time provided with their impressions in plaster.

Mention may here be made of the Townley Pastes, amongst which are some of the largest and most important examples known of pieces of this kind; one quite unique, inscribed with the artist's name, and the Bonus Eventus already noticed, so remarkable for its dimensions and the excellence and peculiarity of its workmanship. These have lately been exposed to the public view amongst the other specimens of antique glass, and thus furnish an additional argument why their more important prototypes in real gems should be drawn from the obscurity in which they have been so long buried—that is to say, ever since the removal of the last portions of the former Montague House, up to which time the cases might be seen under glass in the room at the top of the back stairs leading up to the old apartments of that mansion.



Cupid rescuing Psyche: by Pamphilus Sard.



Hermes making Lyres

THE DEVONSHIRE GEMS.

This Collection was formed by William the third Duke of Devonshire, during the first half of the last century; and, augmented in its descent to the present possessor, now numbers upwards of five hundred gems, including some of the finest antiques, both in cameo and in intaglio, as yet known to the world. From this treasure, eighty-eight gems of the most beautiful in material and the most interesting in subject, were selected by Mr. Hancock (whom I have to thank for the permission to make a careful examination of the suite), and mounted (with a delicacy of taste only surpassed by the skill of the workmanship) in a complete set of ornaments, to be worn, for the first time, by the Countess of Granville, lady of the English ambassador, at the coronation of the present Emperor of Russia. This parure consists of seven ornaments;—a Comb, a Bandeau, a Stomacher, a Necklace, a Diadem, a Coronet, and a Bracelet. The setting is an admirable reproduction of the elaborately artistic style of the French Renaissance, most carefully enamelled, and enriched with brilliants. The “motive,” to speak technically, of the whole design, was the original frame of the portrait of Queen Elizabeth, executed by her own

jeweller Hilliard, now forming the chief ornament (quite in its pristine state) of the Diadem, into which it has been introduced without the slightest alteration. The other stones, I am informed, were all loose when selected to be employed in carrying out this most fortunate idea. It was justly observed at the time, "that Moore's oft quoted line,—

‘ Rich and rare were the gems she wore,’

never had a closer application than to the matchless parure worn by the lady of our ambassador at the recent coronation at Moscow. While others were vieing in the splendour of their jewels, in which the Russian imperial, princely, and noble families are very rich, none attracted so much attention as the Countess of Granville, whose parure was the triumph of art over mere material wealth. Others displayed a perfect blaze of diamonds, but it was for the English lady to assert a higher splendour; and if *their* jewels were the more costly, hers were positively priceless. For while lost diamonds may be replaced, each of these fine gems is unique, and so far has the gem-engraver's art been lost, that there exists no artist who could produce anything to compare with the choice works of the Cinque-Cento period, much less with the higher and more unattainable excellence of the best times of ancient Greek or Roman art. It was a happy thought of the Duke to have had constructed, out of this rich store of art-treasures, a suite of personal decorations fit for the adornment of queen or empress. To any one who has not seen these exquisite ornaments, the impression likely to be conveyed by imagining a series of cameos combined—in a necklace for instance—is, that it would be somewhat monotonous and heavy. Nothing can be farther from the fact; and we were especially gratified with three of its features,—the admirable harmony with diversity of colour giving a

peculiarly soft and mellow tone to the ensemble, the agreeable forms of contour selected, and the exceedingly light and elegant mountings, wholly free from heaviness or dullness of effect."

I shall now proceed to make a few remarks upon the most important of these gems, following the order in which they are numbered in the descriptive catalogue.

The *Comb*.—No. 2 is a small and delicately worked cameo, Head of Leander: an early work; probably Greek.

No. 4. A portrait of Charles I., interesting as a specimen of the decline of the newly revived art, and very rare.

No. 6. A large cameo; bold antique work; a Centaur bearing a Bacchante on his back.

No. 7. The principal ornament of this piece is the famous portrait intaglio of Sapor, on a beautiful Amethyst of uncommon dimensions; the finest relic in existence of later Persian art. The monarch appears with the usual stern expression of face seen in all the Persian regal portraits, his beard elaborately curled, his hair falling in long ringlets, and his head covered with a tiara edged with pearls. Around run two lines of well cut Pehlevi letters.

No. 8 is one of the finest camei of the collection: a Faun balancing his youngster on his right foot. The attitudes of the pair most natural, and the anatomical forms rendered with the greatest knowledge and exactness. This is to all appearance a work of the Greek period. The design is cut in the white stratum upon a dark ground.

The *Bandeau*.—Of this the central ornament is the far-famed work of Dioscorides, known as "The Diomede, master of the Palladium." The hero appears seated, with one leg extended, and contemplating the statue placed on a cippus before him. The intaglio, on a large red Sard, is in somewhat shallow relief, and certainly not equal in merit to the

portraits by the same engraver. The signature of the artist is, however, antique beyond all suspicion; and for this historical recommendation (another instance of the value of a name), the stone was purchased, it is said, for 1000*l.* by the founder of the collection. The characters are extremely minute and well-formed, agreeing with those inscribed on his portraits of Julius Cæsar and of Mæcenas. Probably from the exaggerated idea one had conceived beforehand of the transcendent excellence of this artist from the sight of his heads (in which doubtless his forte lay), the first view of this group is rather disappointing, although had it been nameless it would present much to admire.

To keep fitting company with this most precious antique, the other stones mounted in the bandeau have been selected from those the most valuable in *material* of the whole number employed. They are Oriental precious stones of uncommon beauty, and are rather lessened than enhanced in value by the work upon them, which (in accordance with the usual rule) is always found the best on the cheapest stones, when these are truly of antique date.

No. 8. A Sapphire of the most perfect quality, with a head of Augustus; a very deep intaglio, and apparently good work of his period,—certainly the finest stone of the kind I have ever seen engraved upon.

And the same remark as to the quality of the stone will apply to No. 11, a superb Emerald of extraordinary magnitude. It is cut into a full-faced Medusa's Head, in very high relief, and is probably of Roman work. Nothing is more difficult than to decide upon the antiquity of this class of camei in the precious stones, the surfaces of which bid defiance to the changes wrought by time in all the varieties of the quartz species: but in this instance, besides the extreme grandeur of the treatment and boldness of the lines,

It is hardly probable that any artist of the Renaissance would have obtained from his patron an Emerald of such high intrinsic value (incomparably higher then than now), merely as a material in which to display his skill, however great might have been his reputation at the court of the Pope or Medici of the period.

Nos. 12 and 14 are two *Plasmas* or *Prases* of Roman work; one an *intaglio* of *Serapis*, the other of *Venus Victrix*. They have probably been introduced for their colour's sake, being fine specimens of that gem, and little inferior to the Emerald.

No. 15. A head of *Silenus*, full-face, on *Jacinth*, in very high relief: a very spirited work, and the gem of the very finest quality for tint and brilliancy.

No. 14. An *intaglio*, head of a youth, very deeply cut on a pale octagonal *Sapphire*, is apparently an interesting example of the style of the Lower Empire.

But No. 17 may claim the reputation of being the most valuable *intaglio*, as far as its material is concerned, that graces any cabinet of gems. It is a perfect *Ruby* of the most delicious *cerise* colour, weighing, as nearly as can be judged by the eye, three carats, and consequently of enormous value as a precious stone. The *Venus* and *Cupid* engraved upon it are deeply cut in the usual style of middle Roman work, but the figures are of very mediocre execution, and by no means compensate for the damage done to the *Ruby*, in its character of an ornamental jewel, by the excision of so much of its beauteous surface. The corresponding stone, No. 9 (at the other extremity of the *bandeau*), is also a *Ruby*, but of very inferior quality, yet the *intaglio* it bears, a *Faun's Head*, is greatly superior to this in point of art, and of much earlier date.

In the *Stomacher* the gems most deserving of attention (where all is good) are,—

No. 23. A cameo, white on a dark ground, a Roman Emperor seated on a throne, by the side of a female completely veiled, and presenting a sword to a warrior standing before him. This group is usually explained as representing Tiberius and Drusus, which, however, does not account for the introduction of the veiled lady. A more probable conjecture of its meaning is that the investiture of Tiberius with the tribunician power by his stepfather Augustus, in the presence of Livia (who always appears veiled in her portraits), is here expressed. As a work of art nothing can exceed this cameo in accurate drawing and delicate finish. The figures are kept in flat relief.

No. 24. A profile of Alexander; white, on a pinkish ground, in flat relief, and of a style nearly coeval with his times.

No. 25. An Europa carried upon the Bull, preceded and followed by Tritons sounding their conchs; at her feet are dolphins, and in the rear are two Cupids, one seated on a dolphin and carrying a crown; in the background is a very elaborate landscape; all the figures are a pure white on a dark ground. This cameo is a masterpiece of the Cinque-Cento school in its fullest perfection; admirable in composition, and exquisitely finished in every part: it is, in fact, a picture worked out in an Onyx, and bears no resemblance in its treatment to the simplicity of antique works in the same material.

No. 26 is a very large intaglio of Mars, in Lapis-lazuli of the finest colour, apparently a work of the Renaissance.

No. 29. Head of Minerva, the helmet ornamented with the group of Leda and the Swan, of which the wings form the crest of the helmet. A work full of the grotesque vigour of the Florentine Cinque-Cento, and cut on a remarkably beautiful Onyx, the brown and white layers of which have been employed with the greatest skill, and produce a very

striking effect, so that this cameo arrests the eye before any of the other more important gems mounted in this ornament.

No. 30. A seated figure of Clotho with her distaff; a cameo in high relief, and the body, completely nude, most exquisitely modelled in the white stratum upon the dark ground of an Onyx; this is evidently an antique of the Grecian period.

No. 31. A large Sard intaglio, Ganymede feeding the Eagle, is good Roman work, on a splendid stone remarkable for its size and richness of colour.

The *Necklace* is composed of twenty-one gems, set in separate collets, and suspended from a plaited gold-chain, in such a manner that a pair of intagli of a red colour (Sards or Garnets) hang between each cameo, so as to afford the required contrast of tints. Amongst these intagli I noticed some apparently of exquisite work, and fine Greek gems. The camei, more easily examined than these, of which the delicate mounting renders the taking impressions impossible, present the following interesting gems.

No. 36. A portrait of Queen Elizabeth, white on a dark ground; the hair, edges of the ruff, and ornaments on the dress, are rendered in a brown layer. This is ascribed, with justice, to Coldoré, and is quite in the style of the latest Cinque-Cento camei, the bust being in high relief, and the projections very much rounded off and polished.

No. 39. A Venus and Satyr, of the Cinque-Cento, a very beautiful Onyx, the pinky layers of which have been used with great effect for the flesh of the figures.

No. 41. A Venus Victrix; a beautiful antique.

No. 42. Portrait of Tiberius, forming the centre of the necklace. A fine Roman gem: the head is white on a dark ground; the laurel wreath, and the border surrounding the cameo, are brown; outside the border is an Arabic inscription,

with the name of Alnaser Abu Saadal Mahammed, a Mamluk prince of Cairo about 1496.

No. 48, a most interesting cameo, is a portrait of Edward VI., full face, in flat relief, white on a dark ground, the cap and dress brown. The work is very delicate, and the Sardonyx one of the finest quality. The reverse has the same portrait in intaglio.

No. 51, another excellent Cinque-Cento work, is Mutius Scævola brought before Porsenna. The group consists of the king, Scævola, and two warriors, and is cleverly executed in white on a dark ground.

Of the *Diadem*, also set with twenty-one stones, intagli and camei, the most attractive are,—

No. 57. A cameo bust, white on a dark ground, of Queen Elizabeth, still set in the original enamelled locket, and containing, at the back, two much faded miniatures, by Hilliard, of the queen and of the Earl of Leicester. There is little doubt that this ornament was worn by the queen herself. The cameo is as usual ascribed to Valerio Belli, Il Vicentino; who, by the way, died in 1546, or twelve years before Elizabeth's accession, and who besides never was in England. It is very likely to be a work of Coldoré, who is known to have executed portraits of Elizabeth for his master Henry IV.; for its treatment is altogether in the style of his period, not in the early and stiff manner of Il Vicentino's age.

No. 63, the principal or centre-piece of the diadem, may rank as one of the most beautiful antique camei in existence. The subject is a Victory in her car, and rarely has an Onyx of so fine a quality had all its capabilities brought into employment with such exquisite skill. Victory herself is formed in the blue stratum, her drapery in the brown; one of the horses is of a bluish tinge, the other brown and white

with the mane blue. The work is in very flat relief, so as to take advantage of the extreme tenuity of the coloured strata of the stone ; and is, besides, of so smooth and polished a surface, as to produce the effect of enamels fused upon a dark ground, rather than that of a design worked out of so obdurate a substance. On the back of the Onyx a Cinque-Cento artist has engraved a River god, the Arno ; a clever performance, and affording a useful comparison, as regards its treatment and mechanical execution, with the matchless Greek work on the other face of the stone. This gem also retains its enamelled Florentine setting.

No. 66, admirable for its historic interest, rarity, and workmanship, represents busts of Henry VIII. and his three children ; worked out in the flat and minute manner of the early portrait camei already treated of. The king is represented in full face, a most characteristic likeness ; his children in profile. The figures are in white on a dark ground, the ornaments of the caps and dresses in brown, according to the usual practice of this early school. It would be highly interesting to ascertain if any Italian artist, capable of executing so excellent a performance, ever visited England in this reign ; or if these portraits were done after miniatures transmitted by Henry to Paris or to Florence.³

Of the intagli set in the diadem, three are heads of Socrates, one of Greek the others of Roman work, showing how plentiful were the portraits of this philosopher in every age of the ancient world.

The *Coronet* is made up of smaller gems, principally intagli. The camei introduced are all Heads, generally finely finished and antique performances, of which the best is the bust of

³ At present the Roman cameo-cutters, Saolini for example, produce very faithful portrait-camei in shell for brooches, bracelets, &c., after photographic likenesses sent to them as models from distant countries.

Clytie, No. 74. One intaglio deserves particular notice, a Head of Hercules on Lapis-lazuli, No. 79, a gem of the best Roman style, but which, at a later period, has been converted into an amulet, by engraving on the reverse a scarabeus and the sacred name ABPAΣAΣ, as was common in the fifth century.

The front of the *Bracelet* is set with three red stones. Of these the centre one is a Carbuncle of extraordinary size, and of the richest colour, but engraved, in the usual rude Roman manner of the work in this material, with a Muse tuning her lyre. At each side are Cinque-Cento busts in half relief on smaller stones, one a Carbuncle the other a Sard, selected for their beauty of colour, and which harmonise admirably with the magnificent centre gem.



Roma holding a torque. Spotted Sars

A CONSPECTUS OF THE PRINCIPAL EUROPEAN COLLECTIONS.

—o—

FRENCH COLLECTION. (CLARAC.)

Many of the finest gems of the Cabinet des Antiques have been in France from time immemorial; or at least the dates at which they were brought, and the names of the persons

to whom they are due, are still subjects of dispute. The greatest portion of them proceed from the munificence of the various kings of France, and from the travels undertaken at their command; others were presents made to themselves, and given by them to the public: many also are the fruits of conquest. St. Louis, as well as others of the Crusader princes, brought back some of them from the East. The covers of their Missals, and of their choice MSS., were adorned with them, a few of which are still preserved. Charles V., and his brother the Duc de Berri, were passionately fond of jewels, and their treasuries were extremely rich both in engraved gems and in precious stones, as may be seen from the curious inventory of the jewels of Charles V., existing in the Bibliothèque Royale. Francis I., to whom France owes so many masterpieces of antique sculpture (procured by his orders in Italy through his agents Primaticcio and Cellini), and who, as Vasari phrases it, had made another Rome of Fontainebleau, drew also out of Italy and other countries an immense number of engraved gems, for which he paid vast prices. Thus the taste for them was diffused amongst his courtiers: they adorned the arms, the chains, the caps, the doublets of the warriors, and served for the embellishment of the dresses of the ladies of the court and of the nobility. Henri II. and Catherine dei Medici followed the example of Francis I.; and the latter queen had brought with her from Florence a quantity of fine engraved stones. It was Charles IX. who first united them in one collection in the Louvre, and formed there the Cabinet of Antiquities, which, having been plundered and dispersed shortly after, was no longer in existence at the accession of Henri IV. This great prince re-established it; he summoned from Provence a learned antiquary, M. de Bigarris, with the intention of purchasing the large collection of medals and

gems made by this amateur, in order to unite it to the remains of the former royal collection at Fontainebleau, where the royal library was then kept. This design was postponed in consequence of the death of this prince, and was not resumed until the reign of Louis XIV. His uncle, Gaston d'Orleans, had bequeathed him his own collection, including, amongst other antiquities, a considerable number of gems coming partly from that of the president De Memes, a selection out of the two thousand engraved stones got together by Louis Chaduc in Italy. This cabinet was at first deposited in the Louvre; Colbert, in 1664, replaced it in the Bibliothèque Royale. Louis XIV. purchased antique gems from all quarters, including the collection of Gualdi, and that formed in the East by M. de Monceaux. Louvois, in 1684, removed the cabinet of gems and medals to Versailles, and appointed M. de Carcavy keeper of it. Louis XIV. often amused himself with the examination of these treasures, and added to them the collections of M. de Harlai, of M. Oursel, and of Thomas le Comte. M. de Rainssant, keeper of the cabinet at Versailles, also made some important additions to the number; and this care, after his death, was followed up by Oudinet, deceased 1712, Simon (1719), and afterwards by C. de Boze. Towards the end of the seventeenth century Louis XIV. had made the purchase of the splendid collection of Lauthier of Aix, in Provence, formed with great taste, and under the direction of the learned Peirese, whose own gems Lauthier had purchased. Now also Louis XIV. bought the cabinet of Bagarris, formerly treated for by Henri IV., as already noticed. The famous signet of M. Angelo belonged to the Lauthier Collection. The various travels, in the interest of science, of Nointel, Lucas, De la Croix, and Vaillant, all undertaken at the expense of this sovereign, and at an enormous cost, greatly contributed to

enrich the Cabinet of Antiquities. It was still further augmented by the purchase of the medals of Pellerin in 1775; by the bequest of the collection of Caylus, and by the acquisition of those of Fourcault; and by the union of that of St. Geneviève in 1796. The total number of the gems is 1388, thus classified:—

- 634 Intagli, of which 160 are heads; 474 various subjects.
- 139 Camei of the Greek School: 66 heads; 73 various subjects.
- 58 Camei of the Roman: 51 heads; 7 various subjects.
- 172 Modern Intagli (suspected): 99 heads; 73 subjects.
- 33 Modern Intagli: 12 heads; 21 subjects.
- 93 Camei, supposed modern, of Roman portraits.
- 63 Camei, subjects from modern history.
- 16 Camei of devotional subjects.
- 57 Camei of various subjects.
- 9 Mediæval Camei: 2 heads; 7 various subjects.

Amongst these the names present themselves of the engravers,—Dioscorides, Evodus, Glycon, Gnaeus, Hyllus, Midias, Pamphilus, Panaeus, Aulus (the last modern). The intagli of this cabinet are distinguished for the beauty of the material as much as by the variety of their subjects. Many of them hold the first rank among antique engraved gems,—such are the Achilles Citharedus of Pamphilus, the Dionysiac Bull of Hyllus, the Julia Titi of Evodus, formerly belonging to St. Denis, and the signet of M. Angelo. And as regards camei, nothing can be cited as surpassing in volume of the stone and in excellence of workmanship the following:—the Apotheosis of Augustus (known as the Agate of the Sainte-Chapelle, brought to France by Baldwin II. in 1244); the Apotheosis of Germanicus, which came from Constantinople, and was treasured for seven hundred years in the convent of St. Evre at Tours, until presented to Louis XIV. in 1684; the Augustus, the Annus Verus, the

Jupiter of the cathedral of Chartres, and the vase of Sardonius, designated as the vase of Ptolemy, or of St. Denis.

BERLIN.

The immense collection of Berlin (by far the largest existing) is formed out of the united cabinets of the Elector of Brandenburg, of the Margrave of Anspach, of Stosch (in number 3544 stones and pastes, purchased by Frederick the Great for 30,000 ducats), of Bartoldy (entirely antique pastes), and of later acquisitions, forming the enormous total of 4490 stones and 848 pastes. Of these are classified 3634, being the intagli alone, as follows:—

1. Egyptian and Oriental : gems 165 ; pastes 31.
2. Etruscan and Early Greek : gems 151 ; pastes 30.
3. Greek and Roman Religion : gems 1141 ; pastes 355.
4. Monuments, heroes : gems 263 ; pastes 172.
5. Historical subjects : gems 190 ; pastes 70.
6. Ancient domestic life : gems 138 ; pastes 71.
7. Arms, vases, instruments, masks : gems 297 ; pastes 66.
8. Animals : gems 316 ; pastes 47.
9. Inscriptions, Abraxas : gems 125 ; pastes 6.

Of these 316 gems and 115 pastes present heads, and 2470 gems and 733 pastes, various subjects. Amongst them occur the artists' names of Agathangelus, Agathopus, Alexapollonides, Aulus, Craterus, Diocles, Diodorus, Deuton, Gnaeus, Hellenus, Hermaiscus, Hyllus, Seleucus, Solon.

The finest gems, to the number of 1100, are mounted in gold, the rest in silver. Of stones retaining their antique settings there are 65, twenty-five of which are rings. Set in silver antique rings are 9, in bronze 15, in iron 26, in lead 1. By the side of each intaglio is placed a cast from it in plaster, the only mode of facilitating the study of the beauties or defects of an engraving when it can only be examined, but

not be taken in the hand. From Berlin this plan was introduced into the collection of the Bibliothèque at Paris.

FLORENCE.

The collection commenced by Lorenzo grew up under the patronage of the succeeding princes of the Medici family, especially of Cosmo III., until it has attained the number, according to Maffei, of nearly three thousand gems. Besides many camei of rare beauty, it possesses 14 heads or busts in full relief, in Turquoise, Agate, Sardonyx, and Lapis-lazuli. The names, supposed of artists, occur on 23 intagli and 2 camei.

Gori, in the 'Museum Florentinum,' has described 1010 intagli and 181 camei, of those most valuable for art or subject in this collection.



Hercules and the Stymphalian Birds.

ITALIAN COLLECTIONS.

The Strozzi Cabinet contained, says Visconti, a larger number of first-class works than any other of the same nature. Amongst them was the Hercules of Gnaeus, the Medusa of Solon, that of Sosthenes, the Esculapius of Aulus, the Germanicus of Epitynchanus, the Muse of Allion, and the Satyr of Scylax; and many others without names but of the very highest merit. This cabinet was attached, by the will of its founder, to the Palazzo Strozzi at Rome, whence it could not

be removed without the penalty of forfeiture. It is now dispersed, but the best gems have passed into the Blacas Collection. The Ludovisi gems, belonging to the Prince di Piombino, include many of great value, both antique and Cinque-Cento works, but its chief glory is the Demosthenes of Dioscorides. A set of casts of 68 of the finest are procurable at Rome.

The Cavalier Azara, Spanish minister, possessed (1796) a collection formed by himself at great cost and with much intelligence, and rich in many camei and intagli, valuable either for instruction or for their workmanship.

The Vatican Collection, though accumulated more by means of chance acquisitions than by selection, includes many examples of gems of great volume and of excessive rarity. The catalogue prepared by Visconti for publication, but unfortunately lost, filled two folio volumes, which may give an idea of the great riches of this collection, access to which is so difficult to be obtained that few visitors of the Vatican are aware of its existence.

MODERN GEM-ENGRAVERS.

(Principally abridged from Mariette, '*Pierres Gravées*,' I. 114.)

The earliest artist in this line, mentioned by Vasari, is *Giovanni delle Carniole*, who worked at Florence, under the patronage of Lorenzo dei Medici, in the latter quarter of the fifteenth century. His masterpiece was a head of *Fra Savonarola*, cut upon a large Carnelian.⁷

Domenico dei Camei had engraved at Milan a portrait of

⁷ Mertens-Schaafhausen Collection, B. 180, Carnelian. Bust of a Monk; on the right the letter **I**, on the left **S**, Gothic form. Fine work of the time of the Medici. Hieron. Savonarola? (Is this the gem mentioned by Vasari?)

Ludovico Il Moro, on a Balais Ruby, ten lines in diameter, about this period, or a little later.

Pietro Maria, da Pescia in Tuscany, worked at Rome for Leo X. He was the friend of M. Angelo.

Michelino also flourished there at the same time.

Matteo dei Benedetti, died 1523, was a celebrated gem-engraver of Bologna, and is praised by Achillini in his 'Viridario.'

Francia the painter, of the same city, is also said to have worked in this line.

Marc. Attio Moretti also flourished there about 1495. He is praised by Achillini, and invited by Io. Baptist. Pio, in a Latin elegy (1509), to engrave the portrait of his Chloris.

Caradosso of Milan, and his assistant *Furnius* of Bologna, are placed by Pomponius Gauricus (at the beginning of the sixteenth century) on a level with Pyrgoteles and Dioscorides.

Severo da Ravenna is however set above all others by this writer, who styles him sculptor, scalptor, cælator. He is probably the scholar of Marc. Antonio who engraved the copper-plates with the monogram S. R.

Leonardo da Milano, mentioned with praise by Camillo Leonardo, is probably Da Vinci, the universal genius who, besides goldsmith's work, may have tried his powers in this branch of art.⁸

Jacopo Tagliacarne of Genova is supposed to have engraved the numerous portraits of Genoese nobles of that age, which it was then the fashion to use as seals.

Henri Engelhart of Nurnberg, a friend of A. Durer's, was famous for engraving coats-of-arms on gems.

Gio. Bernardi di Castel Bolognese, engraved for Duke

⁸ I have seen an enamelled pendant certainly does bear his usual monogram. ascribed to Da Vinci; it

Alfonso of Ferrara the attack on the Fort of Bastia, where the latter had been dangerously wounded. He also cut the dies for the medals of the same prince. Paulus Jovius persuaded him to go to Rome, where he was patronised by the Cardinal Ippolito dei Medici and Clement VII., for whom he executed several medals, highly commended by Cellini himself, as well as many intagli on gems. After the death of the Cardinal in 1535, he entered the service of Cardinal Alessandro Farnese, grandson of Paul III., for whom he executed numerous intagli, chiefly in Rock Crystal, in which he worked with great facility. Some of these are still to be seen (1750) set in a cross and two candlesticks of silver, presented by the Cardinal to St. Peter's. On the foot of each are three circular intagli representing different scenes from the life of Christ, the designs for which were probably furnished by the painter, Perin del Vago. His best pieces were a Tityus torn by the Vulture, now in the Strozzi Cabinet, and the Fall of Phaeton, both made for Cardinal Ippolito from the designs of M. Angelo. Another celebrated work of his was his portrait of the Duchess Margaret of Austria, wife of Ottavio Farnese. He died (1555) at Faenza, whither he had retired upon his fortune: aged sixty.

Matteo del Nazaro of Verona worked in France for Francis I. He had been pupil of Avanzi and Mondella, both Veronese gem-engravers, the former of whom was famed at Rome for his camei and Carnelian intagli; and a Nativity by him, on Lapis-lazuli, had been sought after by Isabella Gonzaga, Duchess of Urbino, the first patroness of Raffaele. Matteo's first work of note was a Crucifixion on Bloodstone, so managed that the spots of the stone represented the blood issuing from the wounds, and which became the property of Isabella d'Este of Mantova. At the French Court he chiefly engraved camei, the fashionable ornament of the day. A head of Deianira by

him was greatly admired, in which the various layers of the Agate gave the different colours of the flesh, the hair, and the lion's hide drawn over her head. He also executed for Francis a portable Oratory adorned with numerous gems, and bas-reliefs and statuettes in gold. He set so high a value on his works that he gave them away as presents rather than submit to what he considered too low an offer; and is said to have broken to pieces a fine cameo which had not been accepted by a nobleman under such circumstances. After the battle of Pavia he returned to Verona with his fortune; but was recalled to Paris by Francis immediately upon the recovery of his freedom, was made Head Engraver to the Mint, and died at Paris soon after the King, in 1547.

Gio. Giacomo Caraglio, also of Verona, at first a copperplate engraver, then of gems and medals; worked for Sigismund I., King of Poland, in 1539, at whose court he was still living in 1569.

Valerio dei Belli, Il Vicentino, engraved equally camei and intagli on all kinds of gems; but, according to the fashion of the age, his most numerous works are on Rock Crystal. He also cut dies for medals, both modern and copies of the antique. He was looked upon as the head of the numerous engravers who flourished at Rome under Clement VII., before the sack of that city. This Pope paid him 2000 gold scudi for the Crystal coffer adorned with scenes from the Passion, and which he presented to Francis I. at his interview with him at Marseilles on the occasion of the marriage of his niece Caterina dei Medici to the Dauphin. Besides this, a cross and several Crystal vases by this artist were presented to the church of San Lorenzo at Florence by Clement. He afterwards was employed by Paul III. and the Cardinal Farnese. No engraver has ever been so industrious or so expeditious as Valerio, and his works were long employed as models by all

the Italian goldsmiths. He retired to Vicenza with an ample fortune, but continued to work at his profession down to the very close of his life in 1546. A daughter also of his had been instructed by him in the art, in which she attained considerable distinction.

Marmita the Elder, of Parma, a painter, engraved many gems after the antique. Luigi Marmita, his son, however, greatly surpassed him; and in the service of Cardinal Salviati at Rome was distinguished at a period when nothing mediocre would have passed muster *there*. His most famous work was a cameo head of Socrates; but he abandoned gem-engraving for the more profitable trade of making dies for false antique medals.

Domenico di Polo, of Florence, also a die-sinker, afterwards engraved gems. He had been a pupil of Giovanni delle Carniole.

Nanni di Prospero delle Carniole is also named by Vasari as a painter, "the son of Prospero the gem-engraver."

Luigi Anichini of Ferrara, but resident at Venice, a die-sinker, engraved gems with the greatest delicacy and precision; the smaller their size the more spirit did his intagli display.

Alessandro Cesari, or *Cesati* (so called in Vasari, first edition), Il Greco, surpassed the latter artist in the excellence of his drawing. Besides coin-dies he also engraved innumerable gems. M. Angelo considered his medal of Paul III. (reverse, Alexander kneeling before the High Priest) as the very perfection of the art, beyond which it was impossible to advance. Vasari names a portrait of Henri II., an intaglio on a Carnelian the size of a half-franc, made for Cardinal Farnese, as one of his best works. M. Crozat possessed a cameo portrait of the same king in very low relief, also on Carnelian, inscribed ΑΛΕΞΑΝΔΡΟΣ ΕΠΟΙΕΙ. Vasari also praises his portraits

of P. L. Farnese Duke of Castro, his son Ottavio, and Cardinal Farnese: the last a head in gold on a silver ground. Three camei are also commended—a child, a lion,⁹ and a woman naked. But his masterpiece, according to Vasari, was a cameo head of Phocion. This, in 1750, was in the collection of Sig. Zanetti of Venice, and was still regarded as the most exquisite of any works of that kind.

Giovanni Antonio dei Rossi, a Milanese, engraved the largest cameo known since antique times, being seven inches in diameter, with portraits, three-quarters length, of Cosmo I., Eleanora of Toledo, and all the princes and princesses of their family. This work, says Vasari, established the reputation of the artist, already known by a quantity of other engraved gems.

Misuroni, Gasparo and Girolamo, and Giacomo da Trezzo, all three Milanese, engraved both camei and intagli, but chiefly worked at vases in Agate and Jasper. The last artist was noted for the excellence of his portraits on gems. Marietti cites an admirable head in relief, on Calcedony, of Philip II., by whom he was brought to Madrid. He was employed for seven years in making the Tabernacle of the Escorial, of Agates, Jaspers, and other fine stones, all found in Spain, and was allowed to place his name on the same line with the King's in the dedicatory inscription on the socle of the work. He is said even to have engraved on the diamond.

Clemente Birago, another Milanese, patronised by the same monarch, has however a better claim to this honour. The testimony of both *Clusius* the botanist (who had known him during his stay in Spain in 1564), and of *Lomazzo* his countryman, leave no doubt as to the truth of this fact. The work

⁹ In the Pulsky Cabinet is a most singular intaglio, a lion in his den, full-faced, on a burnt onyx, inscribed ΑΛΕΞΑΝΔΡΟΣ ΕΠΟΙΕΙ. Can this be the gem praised by Vasari?

was a portrait of Don Carlos, intended as a present to Anna, daughter of Maximilian II., his betrothed bride. On another diamond he also had engraved the arms of Spain for a seal, for the same prince.

Tortorino and *Giuliano Taverna*, of Milan, are also named by Lomazzo: the first as a good engraver of camei, the second as a worker on Crystal. Even at the present day (1750) the Milanese excel in the working of Crystal.

Annibal Fontana, died at Milan 1587, was famous for his camei and intagli, and made, for Wilhelm Elector of Bavaria, a Crystal coffer, for which he received 6000 scudi.

Philippo, called Pippo Santa Croce, a shepherd boy, began by carving groups on plum and cherry stones. Count Philipin Doria brought him to Genoa, had him instructed in drawing, and thus he became an engraver in gems.

Antonio Dordoni of Busetto in Parma, died 1584 at Rome, is said to have held the first place among the gem-engravers of that age.

Flaminius Natalis, probably of Liege, an admirable engraver of coats-of-arms, died at Rome 1596.

SEVENTEENTH CENTURY.

The art now began to fade in Italy, but flourished in Germany under the patronage of Rudolph II., of whose time an infinity of vases in hard stones are preserved at Vienna, but nearly all of Gothic and bizarre forms. The chief of his artists were *Lehman*, who had the monopoly of engraving on glass as a recompense for his discovery of that art; and *Miseron*, created a noble and made keeper of the Imperial Cabinet of Curiosities. His son *Denis* also worked for the emperor Matthias.

Christopher Schwaiger, died 1600, aged sixty-eight, is compared to Pyrgoteles for his talent in engraving, in the verses

beneath his portrait by Luc Kilian. He probably flourished at Augsburg.

But few names of Italian artists of this century are known, yet an excellent portrait of Paul V., on Carnelian, set in a ring, preserved in the Borghese Palace, proves that some good masters still existed in his time.

Coldoré however was indubitably the first engraver of the century. He worked at Paris for Henri IV. and Louis XIII. The portrait of the former he has repeated an infinite number of times, both in intaglio and in cameo, and always with the same finish and success as to the likeness. No *figures* by him are known, his works being exclusively heads. He is said to have been invited over to England by Queen Elizabeth, and in the Crozat Collection is a cameo head of that princess on Agate-Onyx, evidently by this artist. He is supposed to be the same as the Julien de Fontenay mentioned in the *Lettres-patentes* of December 22, 1608, as the king's valet and engraver in precious stones—Coldoré being a nickname derived either from his dress or from his birthplace. A fine portrait of Richelieu, on a Siriam Garnet, in the Crozat Cabinet, is probably of too late a date to be his work, and is besides in somewhat too stiff a manner.

Maurice, father and son, and Jean Baptiste Certain, also flourished under Louis XIII.

Borgognone worked at Florence for the Grand Duke about 1670.

Adoni, at Rome, principally engraved clasped hands for betrothal rings.

Rey, at the end of the century, had a great reputation at Rome as an engraver of all kinds of subjects on gems. They speak with praise of his portrait of Carlo Albani, brother of Clement XI., and of the seal of the Marchese Castel San Vito.



Juno, by John Pichler.

EIGHTEENTH CENTURY.

Flavio Sirletti, died at Rome 1737, surpassed all modern artists in the fineness of his touch, and approached the nearest of all to the ancient Greek style. He excelled in portraits. His best was one of Carlo Maratta, executed for Agostino Masnecio, a scholar of that painter. His intagli representing antique statues—the Hercules Farnese, the Apollo, the Giustiniani Bacchus, and his Laocoon—are excellent in drawing and in finish. This last, on Amethyst, was bought by Lord Besborough. He signed his works $\Phi. \Sigma$. Vettori possessed the last of his works, a Laughing Faun crowned with ivy. His two sons, Francesco and Raimondo, followed the same profession at Rome.

Costanzi, Giovanni and Carlo, in the year 1750, were the most distinguished in this art at Rome. The elder, according to Stosch, engraved the head of Nero on a Diamond for the Prior Vaini. Carlo cut on the same gem a Leda, and a head of Antinous for the King of Portugal. His style is highly finished, neither too stiff nor too loose; his drawing correct, his portraits the flesh itself, and very like. Nothing can be better for an intaglio than his portrait of the Cardinal Spinola on an Agate-Onyx, though Mariette was assured that his heads of the Pretender and of Carlo René Imperiali are quite

equal to it. He has succeeded better than any of the moderns in his copies of antique gems, and has frequently repeated his head of Antinous. Many connoisseurs have been deceived by his copies; such, for instance, as that of the Strozzi Medusa, made in 1729 for the Cardinal Polignac, on a Calcedony of the same size and colour as the original, and imitated even to the name of the artist.¹⁰ Though born at Naples, 1703, he always lived at Rome, where he had a brother *Tommaso*, also a skilful engraver in fine stones.

Domenico Landi was also, according to Vettori, "one of the most famous artists at present in the same city." In 1716 he engraved a bust of Augustus, on Calcedony, for the Marquis de Fuentes, Portuguese ambassador; in 1720 a portrait of N. Duodo, the Venetian envoy, on an Emerald. Two gems, of larger dimensions than ring-stones, by him, are portraits of Trajan, Plotina, Matidia, Marciana, facing each other; and the other of Severus, Julia, Caracalla, and Geta.

F. Ginghamio of Florence, engraver to the two last Dukes, living at Naples in 1750.

Ant. Pichler, established since 1730 in the same city.

Girolamo Rossi, at Livorno.

Of all modern engravers, none in my opinion have so fully come up to the antique style as *Rega* of Naples, who flourished at the end of the last century. His Hercules Reposing and his Head of a Bacchante might well pass for gems of the finest Greek work, were it not for his signature PERA which appears

¹⁰ He also engraved a portrait of the Empress Maria Theresa on a large and fine Sapphire. But what he himself considered his masterpiece, and which cost him two years and a half of constant labour, was a table Emerald, with the head of the Pope on one side and of St. Peter and St. Paul on the other. The gem is two inches in diameter, and was designed for the brooch fastening the cope worn by his Holiness on great festivals, but, after once wearing it, he ordered it to be deposited in the Treasury of San Petronio at Bologna.

upon them. His intagli have much more of the true antique spirit than those of Pikler or Natter. Visconti is of opinion that the engravers of the last century do not deserve the eulogium bestowed on them by Millin; the artists of the Cinque-Cento school, such as Cesati Il Greco, Bernardi, and Belli, were far above them in boldness of manner and in accuracy of drawing. Besides this *they* had a style of their own, or at least that of the contemporary school; whereas those of our day possess less intelligence, but are closer imitators of the antique in their composition and in their forms. Rega however Visconti pronounces a most admirable artist, and he had seen some of his heads in intaglio that rivalled the best of the antique; this in my judgment is true, for nothing of any period can surpass the "Head of a Bacchante," that favourite subject with the ancients, where the treatment of the hair is especially to be admired, being truly in the Greek manner. This Head also proves his great superiority over Marchant, who has reproduced the same subject, but in his usual tame and laboured manner; whilst Rega's work is full of life and energy, and displays the greatest freedom of touch.

Gotfried Graaft, Il Tedesco, at Rome.

Laurent Natter, of Nurnberg, studied the art at Venice, and afterwards worked at Rome with considerable credit. Much praise is given to his copy of the Julia Titi by Evodus, on a reduced scale; but still more is due to his portrait of Cardinal Albani, as being an original work. A Head of a Youth, on Amethyst, belonging to the Abbé Rothelin, was greatly admired in Italy. After leaving Rome he established himself in London, whence he is said to have gone to Persia on the invitation of Thamas Kouli Khan (Nadir Shah). He died at St. Petersburg, 1763.

Marc Tuscher, his townsman, was by no means his equal

in merit. Being at Rome in 1733 he engraved his own portrait, signed ΜΑΡΚΟΣ, and probably some other gems; but is chiefly known for his admirable series of plates of the coins of Sicily and Magna Grecia.

Dorsch, of Nurnberg, 1676 to 1732, engraved for Ebermeyer numerous suites of portraits of Popes, Kings, and Emperors, and *unfaithful* copies of famous antiques, with nothing to recommend them in the execution. He taught his two daughters also the same art.

*Becker*¹ was regarded as the best German engraver of the century. Born at Coblentz, he went to Vienna, and engraved medal dies for two Emperors of Germany. His works in gems are principally seals of German Princes, containing numerous quarterings very skilfully done. He cut portraits on gems of Charles VI. and his Empress, and also of Prince Eugene.

F. J. Barrier, born at Paris 1680, engraved portraits, the most admired being those of the Marquis Rangoni and of Fontenelle; and groups of figures extremely minute on the body of vases of Carnelian and Agate.

Jacques Guay, of Marseilles, studied at Rome, where he engraved the head of Antinous from the bust of the Capitol. His drawing is correct, and imitation of the Greek style perfect. His portraits are admirable, especially that of Crebillon. No modern engraver has ever thrown into his work such spirit as Guay has done in a Carnelian intaglio, the "Victory of Fontenoy," from the design of Bouchardon. He afterwards succeeded to the post of gem-engraver to the King, formerly held by Barrier.

The only English artist of any merit in this line is *Charles Christian Reisen*, son of a Danish engraver who came to London with William III. He died in 1725, aged forty,

¹ Now better known for his false dies for ancient coins.

yet left behind him a great number of works. A portrait of Charles XII. of Sweden, a three-quarter face, is quite correct as to principle; but all his intagli are wanting in finish, from the extreme rapidity of his execution.

Claue, a pupil of his, and the most able, died mad in 1739. *Smart*, another pupil, was in Paris in 1722.

Seaton, a Scotchman, also his pupil, was in 1750 the first engraver in London.

Smart worked with astonishing celerity. In a single day he would often finish several heads, and that by no means in a careless manner. His best work, when at Paris, was a head of *Monima* from the antique. *Seaton* endeavoured to give an extreme finish to his gems: hence they are weak, cold, and without spirit. His chief works are portraits of Pope, Inigo Jones, and Sir John Newton, for the last of which he was paid 25 guineas.

John Pichler, the first of modern engravers, was the son of Ant. Pichler, mentioned above, and born at Naples, where his father had been settled from the beginning of the century. He, however, was far superior to his father in this line, so that his intagli were often sold by the antiquaries as first-rate antique gems. To prevent this fraud he ever afterwards signed all his works with his name in Greek capitals ΠΙΧΛΕΡ. He died at Rome, 1791.

ENGLISH GEM-ENGRAVERS.

Mention may be fitly made here of the few English artists whose gems, signed with their names, occasionally are seen in collections. Of these, the chief, beyond all question, was *Marchant* in the last century, who executed many fine works, both modern portraits, antique heads, and groups in the Greek style. There is much grace and delicacy in his

figures, but the finish of them is too minute to be effective, and consequently his heads are deficient in boldness and expression. At the sight of his engravings you become sensible that they were executed with the aid of a powerful magnifying glass, and they require to be viewed through such a medium to produce their full effect. This is a common error with modern engravers, and one of Pichler's chief merits is that he has avoided it, and that his works, like those of the ancient artists in this line, produce their effect on the eye at the first glance. Marchant's skill was, however, fully appreciated in his own times; probably from the circumstance of his carrying on his profession at Rome, and thus becoming known to wealthy English amateurs, who at all times have preferred to pay pounds for works of art abroad, rather than as many shillings for productions of equal merit executed at home. I have seen a Sard engraved by him, with two female figures, the one seated, the other standing by her, apparently portraits, for which he was paid 200 guineas.

Clarac mentions his having been shown at Otranto a paste taken from one of Marchant's gems, which, backed with a slice of Sard after the usual manner of such forgeries, had been sold at an enormous price to an amateur as a first class Greek work, recently discovered in that locality.

Brown was noted as an engraver of Cupids, singly and in groups. He also executed portraits with great taste. His intagli are always signed R. B.

Burch, R. A., died 1814, was an admirable artist in this line. I have seen a Head of Hercules by him worthy of any engraver of the times of Augustus. His works are very numerous.

Wray, of Salisbury, died 1770, executed a few fine intagli, Pastes of which were thought worthy of admission into Tassie's list of antiques. But though the first of English

gem-engravers, he never obtained more than 20 guineas for his best works. These are, as he himself classed them, 1. The Dying Cleopatra. 2. Copy of the Strozzi Medusa. 3. Magdalene. 4. Flora. 5. A Madonna. 6. Female head, ideal. 7. Ditto. 8. Milton, front face. 9. Milton, profile. 10. The same. 11. Cicero. 12. Pope. 13. Zingara. 14. Antinous.

Pistrucci, though a Roman by birth, may be mentioned in this article, as from his long residence in London he may be almost considered as an English artist; although his success, as far as pecuniary remuneration is concerned, has far exceeded the wildest dreams of any gem-engraver of previous ages. At first he practised the art at Rome, and there executed the Head of Flora, bought for an antique work by Payne Knight, and long regarded as the choicest gem of his collection. Lord Maryborough was his first patron on his arrival in London, and when made Master of the Mint, appointed him the Chief Engraver to that establishment. At the great re-coinage in 1816, a Cameo by him, a Greek Warrior on horseback, was adopted with slight alterations for the reverse of the sovereigns and crowns. The improved copy of this design on the subsequent coinage of George IV. is probably the finest work that has ever appeared upon a modern currency. His heads on the obverse of the same coinage are by no means so successful; they have a very scratchy appearance, and have none of the boldness that the work from a steel die ought to present: in fact he is said to have cut the punches by means of the lapidary's wheel, exactly as if operating upon a gem, a fact which fully accounts for the feebleness of the result. His coronation medal, however, of George IV. is a very spirited work; and his double sovereign of the same reign has great merit in spite of the scratchy treatment of the hair, especially when we

consider the low state into which the arts had fallen, and the barbarism into which the country had been plunged by twenty-five years of a ruinous and unnecessary warfare. For his merits, great as they undoubtedly were, he obtained the most fabulous remuneration : thus a Cameo with portraits of Augustus and Livia, which fetched at the sale of the Herz Collection the sum of 30*L.*, had been executed by him some forty years before at the astounding commission of 800*L.*, doubtless the largest sum ever paid for a work of the kind.



Ship under Sail. Emblem of mortal life

RINGS AND SETTINGS.

An appropriate text to this dissertation will be the advice on this point given by Clemens Alexandrinus to the Christians of the second century. *Paedagogus* III. 2.

“Moreover, men ought not to wear their ring upon the top joint of the finger, for it is an effeminate practice ; but on the little finger, and thrust it on too as far as it will go, for thus the hand will be easily used for all necessary purposes, and the signet ring will not fall off very easily, being guarded by the larger size of the joint of the finger itself. And let the engraving upon the stone be either a pigeon, or a fish, or a ship running before the wind, or a musical lyre, which was the device used by Polycrates, or a ship’s anchor, which Seleucus had cut upon his signet ; and if it represents a man fishing, the wearer will be put in mind of the Apostle, and of

the little children drawn up out of the water (Moses?). For we must not engrave on them images of idols, which we are forbidden even to look at;² nor a sword, nor a bow, being the followers of peace; nor drinking goblets being sober men. Yet many of the licentious world wear engravings of their naked minions and mistresses in their rings; so that not even if they wish it can they at any time enjoy a respite from the torments of desire. We must wear but one for the use of a signet; all other rings we must cast aside."

The earliest rings are made of pure gold, hollow, and the metal very thin. Such occur even of the Etruscan period, but are very rare, the signets of that nation still retaining the form of scarabei. The most magnificent Etruscan ring known, is that once in the collection of the Prince di Canino: it was formed of the fore parts of two lions, whose bodies composed the shank, whilst their heads and fore-paws supported the signet, a small Sard scarab, engraved with a *lion regardant*, and set in an elegant bizzel of filigree work. The two lions were beaten up in full relief out of thin gold plate, in a stiff archaic style, but very carefully finished. A Greek ring lately came in my way of a pretty and uncommon design, though the make was rude enough: two dolphins whose tails met formed the shank, and supported with their heads the setting, containing a circular crystal or paste.

Roman rings also, if of early date and set with good intagli, are almost invariably hollow and light, and consequently easily crushed. This and some other interesting points are well illustrated in the story told by Cicero of L. Piso, when

² Macrobius says that Ateius Capito, a famous lawyer of the Republic, highly censured the practice of wearing figures of the deities engraved and set in rings; but this was on account of the profanation to which they were exposed. This

delicacy of notions was afterwards carried to such a degree that, under Tiberius, persons were actually executed on the charge of treason for having worn rings set with the portrait of Augustus during their visits to brothels.

praetor in Spain (in which province he was killed): "Whilst he was going through the military exercise, the gold ring which he wore was by some accident broken and crushed. Wishing to have another ring made for himself, he ordered a goldsmith to be summoned to the Forum of Cordova, in front of his own judgment-seat, and weighed out the gold to him in public. He ordered the man to set down his bench in the forum, and make the ring for him in the presence of all." This was done to prove to the provincials his scrupulous honesty, that he had not taken "even half an ounce" of gold out of the public treasury, but had merely given him his old broken ring to work up again into a new one. Here we have a picture of the ancient goldsmith carrying about with him his fire-pot and a few tools (like the Indian jeweller of the present day), and squatting down to execute his work under the eye of his employer. This mode of making the ring, by hammering it out of the gold, affords a pretty simile to Ovid, *A. A. III.*, 221.

"Annulus ut fiat primo colliditur aurum."

"The gold is beat up ere the ring is made."

These hollow rings were convenient receptacles for poison, of which they would contain a large dose, being always of a bulky shape. Of this practice the instances in history are numerous, as the death of Hannibal and of Demosthenes suffice to show; and another less known instance—that of the custodian of the Capitol, who, being apprehended on account of the robbery of the gold deposited there by Camillus, which had been taken away by Crassus, "broke the stone of his ring in his mouth,"³ and expired immediately, probably to

³ In the Mertens-Schaafhausen Collection is an Onyx intaglio, the back of which has been completely hollowed out into the form of a bowl, with the usual raised circle at the bottom. I have no doubt it was thus formed as the receptacle of a dose of poison, for the gem was worked out so thin that it could easily be crushed by a sharp bite.

escape the torture for his supposed complicity in the sacrilege. The ancients were acquainted with vegetable poisons as speedy in their effects as the modern strychnine, as appears in the death of Britannicus from a potion prepared by Locusta, and in innumerable other instances. These hollow rings were put together with a degree of skill far beyond that of our modern jewellers; for the soldering of the numerous joinings of the gold plates of which they are formed is absolutely imperceptible even when breathed upon—a test under which the best modern solder always assumes a lighter tint. This is due to the different composition of the ancients, which was made of chrysocolle (carbonate of copper), verdigris, nitrum (carbonate of soda, natron) mixed with the urine of a child, and rubbed down in a copper mortar with a copper pestle. This solder was called *santerna*.⁴

Under Claudius it became the fashion to engrave the device upon the gold of the ring itself, now made solid; at first this engraving was the bust of the emperor, and such rings could only be worn by those that had the entrée at court. A fine example of this sort, with busts of M. Aurelius and L. Verus facing each other, is to be seen in the Florence Gallery. This was but a revival of the ancient practice, for Macrobius, vii., 13, quotes Ateius Capito to the effect that the devices were originally always cut upon the substance of the ring itself, whether it was of gold or of iron; and that the progress of luxury introduced engravings upon precious gems to augment the value of the signet.⁵

In Pliny's time it was the fashion to wear but one on the

⁴ Cellini's receipt for solder is Native Verdigris, 6 parts, Sal-ammoniac 1, Borax 1, ground down and mixed to a paste with water. The modern, used for gold of tolerable quality, is made of equal parts of gold and silver, to which a little

arsenic is added to promote fusion.

⁵ I have seen a splendid head of a nymph, apparently of Sicilian work, engraved upon the gold of a solid ring; and other instances of less importance, but certainly far earlier than the age of Claudius.

little finger; previously the signet had always been carried on the ring-finger of the left hand from a notion that a vein passed down it direct from the heart. At the late period of the empire when Macrobius wrote (late in the third century), this had again become the usual finger to wear the signet-ring upon, for the assembled guests in his 'Saturnalia,' vii., 13, express their surprise at seeing Avienus wear *his* upon the little finger of his right hand; for which he excuses himself on the plea of his left hand being swollen by an injury. Pliny's words are, "At first it was the custom to wear but one ring on each of the fingers next to the little finger of each hand, as we see in the statues of Numa and Servius Tullius (the only Roman kings represented as wearing rings). Next they put them on the fore finger, even in the statues of deities. Last of all they thought proper to grant this honour even to the little finger. The natives of Gaul and Britain are said to have worn them on the middle finger. *This*, now, is the only one excepted, all the others are loaded; and even the joints individually with others of smaller size. Some pile three upon the little finger alone, others wear on *this* but a single ring which they use as their signet. This is treasured up, and, like a precious rarity unjustly profaned, is drawn forth from its sanctuary: and to wear a single ring on the little finger is but a way of showing off the more precious collection locked up at home." The custom of covering all the joints of the fingers with rings when in full dress was so prevalent, that Quintilian, in his directions to orators as to their costume, attitude, and action (xi., 3), deems it necessary expressly to caution them against this senseless piece of foppery: "The hand must not be overloaded with rings, especially with such as do not pass over the middle joints of the fingers."⁶ This fashion of

⁶ The minute size of many antique gold rings has often puzzled archaeologists from their ignorance of the passages above quoted.

having rings for each finger-joint is the one condemned by Clemens Alexandrinus; and continued in use, in spite of his objurgations, down to the close of the empire; for Ammian, writing at the beginning of the fifth century, speaks of the Roman nobles, on leaving the baths, receiving from the attendant their rings, which they had taken off lest the wet should injure them, and then strutting away "*digitis sicut metatis*," with their fingers measured off by the rings placed on each separate joint. The origin of the quarrel between Plato and Aristotle was because the former found fault with his luxurious style of dress and his custom of wearing a number of rings, at least so says Aelian, iii. 19. Lucian, writing in the second century, makes the girl tell her mistress that Parmeno has returned from the wars quite a rich man, and as a proof, "that he has on his little finger a large polygonal gold ring set with a three-coloured gem, red on the surface (an oriental Onyx)."

Taste had so far declined even when Pliny wrote that some persons "made a boast of the weight of their rings," of which one found in Hungary, and now in the Fould Collection, is a most convincing testimony. Though evidently intended for the little finger its weight was three ounces, the shank was triangular in section, increasing rapidly in width on each side towards the head of the ring, which thus formed a long and pointed oval. It was set with a large oriental Onyx of the very finest quality and not engraved; quite the ring of Parmeno—when the consideration of the mere intrinsic value of an ornament had entirely banished all regard for art. In my own collection is a ring of this date weighing 15 dwts. (a modern Roman ounce), set with an Onyx rudely engraved with a dancing girl; and I have seen another of similar form, the Onyx intaglio of which was a pigeon: both illustrative of the remarks of Clemens

Alexandrinus quoted above. These weighty rings were probably badges of office under the Empire, for we find one specified among the various insignia and allowances, some singular enough,⁷ ordered by the Emperor Valerian to be made to Claudius Gothicus on his appointment as Tribune of the Fifth Legion—(Treb. Pollio Valerian). “Two brooches in silver-gilt; one brooch in gold, with a copper pin; one *double-gemmed ring* of an ounce weight; one bracelet of seven ounces; one neckchain of one pound.” This term *annulus bigemmeus* is difficult to explain, for no antique rings occur set with two gems, though they do with three. I suspect that *bigemmeus* refers to the *stone* itself, and means a gem of two colours, as the *Nicolo*, so often found in these massy rings. One weighing an ounce was found, 1836, near Bristol, set with an Onyx, engraved with a head of Augustus in a good style; and Caylus V., CXII., gives one of very elegant form, the gem of which is a *Nicolo* engraved with the letters Q.R.H. The shape of these rings at once shews for which finger they were designed, being nearly triangular, the base of the triangle being the head of the ring; so that in spite of their weight they sit very comfortably on the little finger and on *that* alone, and are much less inconvenient to wear than one would have expected from their bulky proportions. Some Etruscan rings occur, in which the face of the ring is an elliptical plate adorned with figures in outline, generally Sphinxes: these were merely intended as ornamental, not as signet rings. I have met with but one Etruscan intaglio, not a scarab, in its antique gold setting, which was a large case of thin gold plate, in which the Sard was fixed and surrounded by several folds of plaited wire, forming a broad bizzel around the stone. The shank was a thick round wire

⁷ As “*duas eximias mulieres ex captivis.*”

soldered on to the side of the case, with two gold balls on each side of the junction.

We have seen Pliny's remark that the Gauls and Britons were the only nations who wore rings on the middle finger (which he appears to consider a truly barbarian fashion), but what these rings were is not known, unless the large bronze plain hoops, so often found amongst ancient remains in this country, were of this nature. Perhaps the smaller specimens of the so-called "Ring Money" were used for this purpose, for nothing like an intaglio^{*} ring can be assigned to these nations before the period of their subjugation by the Romans; although numerous relics attest their skill in working gold into various tasteful ornaments. The abundance of this metal in Gaul was such in ancient times that the produce of Cæsar's campaigns in that region lowered the value of gold at Rome by nearly one-third.

The Gallic gold coins of native unrefined metal, rude imitations of the staters of Philip, are still numerous in cabinets, and appear to have been current in Gaul even under the latest emperors. In no other way can we explain the edict of Majorian, "Let no tax-collector refuse to take a solidus of full weight, except it be that Gallic solidus which is rated at a lower value on account of the quality of the gold." Now these ancient autonomous pieces are all coined of the metal in its native state, containing a large per-

^{*} One intaglio, however, has come under my notice which was considered by its owner (whose opinion is of the greatest weight with me) to have been the work of a Gallic artist. It was an oval bead, of pale Amethyst, engraved with a wild boar, and in a very peculiar style, exactly agreeing with that of the same type so often occurring on the reverse of the Gallic coins. I have

also lately seen a silver ring, of an extremely grotesque and barbarous fabric, the shank being an attempted representation of caryatid figures; instead of an engraved stone it was set with a large silver coin, one of the common imitations of the didrachm of Philip, and both its make and its substitute for a gem fully indicate its Celtic origin.

centage of silver (which can only be separated by a skilful metallurgist); whereas all the imperial gold currency, even of the Gallic tyrants, as Postumus and Victorinus, is of the purest metal.⁹ It is my belief that most of the "Ring Money" was used as articles of personal ornament, and that the form with large cup-shaped extremities served as a button for fastening round the neck the large and heavy Gallic "sagum" or mantle, each end passing through an opposite button-hole like a pair of modern studs.



Copied obtained by Psyche. Girasol. Narcissus and Echo: Roman. Prase.

Let us now speak of *Iron Rings*, the common wear of the Romans of all degrees under the republic, the ornament of the martial metal well beseeming the descendants of the god of war. Here too we can appropriately introduce the poet's fabled origin of this decoration of the hand. "Jupiter having at length been moved to release Prometheus from his chains, in which he had sworn to keep him for ever, to save his conscience and yet keep his oath to the letter, obliged the freed prisoner to wear always on his finger a ring made out of the iron of his fetters and set with a fragment

⁹ Such continued the rule till late century are equal to our present standard for the sovereign. in the Byzantine period, even the bezants of the Comneni in the 12th

of the rock to which he had been chained." When Marius rode in triumph, both the general, and the slave standing behind, had iron rings on their fingers, and the fashion continued universal to the very end of the Republic. This fact explains the existence of the large number of good intagli we meet with that have been originally set in iron, though the rings themselves have generally been reduced to masses of shapeless rust. A few, however, having chanced to be buried in dry sand have come down to us uninjured, and in some of them it will be observed that the gem was set open; an example of which was a fine and large Carbuncle engraved with a Canopic vase, now in the Fould Collection. This mode of setting intagli was very unusual with the ancients: in most rings the stones were backed with a plate of gold to prevent the rust from shewing through and thus marring the beauty of the gem. One of the finest Roman intagli I have ever met with is set open in an iron ring, and is a portrait of Massanissa; perhaps has been worn by Scipio himself; the merit of the engraving proves that it must have been executed for a person of high position.

Under the early republic the senators alone had the privilege of wearing rings of *gold*, for they are said to have taken off their rings to mark their sense of what they considered a public calamity—the publication of the Dies Fasti, by Cn. Flavius, the secretary of Appius Cæcus, and his election as tribune of the people in consequence, B.C. 305. On the same occasion the knights laid aside their silver horse-trappings, for a gold ring was not made the distinction of that class until the reign of Tiberius; for even under Augustus the greater part of that body still wore the ancient ring of iron. By the law passed under Tiberius, no one was allowed to wear one of gold unless he was of free birth, his father and grandfather rated at 400 sestertia (4000*l.*), and

had the right of sitting among the fourteen rows in the theatre allotted by the Julian law to the Equestrian Order (Pliny, xxiii. 8). Before this law was passed any one might wear a gold ring who pleased, by which fact Pliny explains the three bushels of gold rings collected at Cannæ, as showing how universal the fashion had become at that time; and C. Sulpicius Galba, under Tiberius, had complained that the very tavern-keepers presumed to usurp this ornament. But even under Augustus some senators (old Conservatives no doubt) still retained the republican ring of iron, as Calpurnius, and Manilius who had been lieutenant of Marius in the Jugurthine war, and L. Fufidius. In the family of the Quinctii not even the ladies were allowed to wear any ornaments of gold. The Lacedemonians of Pliny's age also adhered to the precept of Lycurgus, and only wore rings of iron, which custom they retained to a much later period; for Phlegon, writing in the next century, while relating his most ghastly of all ghost stories,¹⁰ with which his book on 'Wonderful Things' opens, speaks of the iron ring of Machatas, exchanged by him for the gold one with which Philinnion, his spectre-bride, had been buried. But under the empire rings of this metal had soon become degraded into a badge of servitude with the Romans; for Apuleius, in mentioning a money bag sealed by a slave, speaks of the iron signet ring which he, as a slave, was wearing on his finger. Hence the wealthy freedmen used to wear them gilt. Many of these are still preserved. They went by the name of Samothracian rings in that age. Thus the rich Trimalchio, originally a slave, though he proves to his admiring guests, by actually weighing them in their presence, that the gold

¹⁰ The original of Goethe's 'Braut von Corinth,' but far superior to it in dramatic effect, for he has Goth-icised and spoilt the story.

ornaments on his wife Fortunata amounted altogether in weight to six pounds and a half,¹ yet durst not himself wear a solid gold ring, but "had on his little finger a large gilt one, and on the top joint of the next finger, another of gold studded with iron stars." Freedmen could only obtain the right of wearing a ring of solid gold by an express decree of the Senate; and, as may be supposed, there were not wanting instances of the nobles thus paying court to the favourite of the ruling prince: a degradation thus wittily commented upon by Pliny, in a letter to Montanus. "You must have already observed,

¹ The passage, from Trimalchio's Feast, above quoted, is worth transcribing at length as a curious illustration of the massy ornaments of the females of that period—the time of Nero. "But tell me, pray, Gaius, why does not Fortunata come to dinner?" "Why," replied Trimalchio, "you know what a sort of person she is: until she has seen that the plate is all right, and has divided the broken meat among the younger fry, she will not put a sup in her mouth." "That may be," says Habinna, "but, unless she comes to table, I vanish." So saying, he was on the point of getting up, but, on a given signal, "Fortunata" was bawled out four times and more, with one voice, by the whole body of servants. She therefore came in, wearing a white apron in such a way as to show beneath it her red gown, wreathed anklets, and gilt slippers. Then, wiping her hands on the handkerchief she wore round her neck, she approaches the couch on which Scintilla, Habinna's wife, was reclining, and kissed her as she was testifying her delight at her appearance, with "Do I really see you, my dear?" And thus things went on, until Fortunata pulled off

the bracelets from her brawny arms, and showed them to the admiring Scintilla. At last she undid her anklets also, and her golden hair-caul, which she told us was of the finest standard. This was noticed by Trimalchio, who ordered all of them to be brought to him; then "Do you see," quoth he, "the woman's fetters? Look how we cuckolds are robbed and plundered! They ought to weigh 6½ lbs., and yet I have myself a bracelet of ten pounds weight made out of Mercury's tithes on my profits." Finally, lest we should doubt his veracity, he sends for a pair of scales, and bids all around make sure of the weight. Nor was Scintilla any better-mannered, for she took off from her neck a little case which she called her Good-luck, out of which she took two ear-drops, and gave them in her turn to Fortunata for examination, saying, "Thanks to my lord and master nobody else has such fine ones." "Why," said Habinna, "you plagued me into buying you these glass beads; truly, if I had a daughter I would cut her ears off. If there were no women we should have everything dirt-cheap; but now we gain a penny and spend a pound."

from my last letter, that I had lately remarked the monument of Pallas (a freedman of Claudius Cæsar) with this inscription, 'To this man the Senate, on account of his fidelity and affection towards his master and mistress, decreed the insignia of the prætorian office, together with the sum of 150,000*l.*, of which vote he only accepted the honorary part.' I afterwards deemed it worth my while to look up the decree itself. I found it so exaggerated and extravagant, that, in comparison with it, that most arrogant of epitaphs appeared not merely modest but even humble. The collected and united glories, not only of those ancient heroes the Africani, the Achaici, the Numantini, but even of those of later times, the Marii, Syllas, and Pompeys, not to go down further in the list, will fall far short of the praises heaped upon a Pallas. Must I think the senators to have been joking, or to have been miserable wretches? I should say joking, if joking befitted the dignity of the Senate. Were they wretches then? But no one is sunk so low that he can be forced to commit such actions. Was it done then out of ambition, and the desire of rising in the State? But who could be so senseless as to wish to rise through his own or the public disgrace, in that commonwealth in which the sole advantage of the most exalted station was the privilege of being the first to sing the praises of a Pallas? I pass over the circumstance that the prætorian insignia are offered to Pallas, to a slave, inasmuch as they are offered by slaves. I pass over that they vote, 'He must not merely be urged but even compelled to wear the gold ring,' it being, forsooth, derogatory to the dignity of the Senate that a man of prætorian rank should wear one of iron." An apt illustration of the badge of an imperial freedman, is the following description of a ring once in the possession of an acquaintance. "An antique iron ring plated with gold; it has on the centre a

gold medallion, having the busts of Augustus and Livia facing each other, in high relief."



Mask, hollowed out to contain poison. Onyx.

Silver Rings are very abundant, both solid ones with the devices cut upon the metal, and also set with intagli. In one found at Caerleon, Mon. (Isca Silurum), the stone, a Nicolo, engraved with a rude figure of Venus Victrix, was set in a gold collet let into the silver bizzel; an unique instance of this mode of setting. These rings are usually of rough workmanship, as well as the intagli they contain, and appear to belong invariably to the Lower Empire. From their size and shape they were evidently made to be worn on the little finger, an additional proof of their late date. In *this* country they are often found in the vicinity of camps and military stations, and the subjects on them are usually Victories, Eagles, Ravens, and similar legionary devices. Arellius Fuscus, when expelled from the Equestrian Order, and consequently deprived of the right to wear a ring of gold, appeared in public, according to Pliny, with silver rings on his fingers, apparently out of bravado, and to show his contempt for the punishment inflicted upon him by the Senate. Rings are by no means rare formed entirely of this metal; but I have only met with one presenting a well-engraved device, a Venus, upon its face, for the work of such engravings is generally very coarse. The silver also is of the same base standard as the coinage of the period to which they belong; for the nature of their subjects, being legionary

insignia and rude attempts at imperial portraits, prove that they must be all assigned to the poorest classes and common soldiers of the Lower Empire.

These remarks apply equally to rings of *Bronze*, which are, as might be expected, the most numerous of all, with this addition, that they are often found of a fanciful design, and set with coloured pastes for ornamental wear. Paste intagli generally occur in bronze settings. I know but one instance of a paste, a fine cameo of a Sphinx, being found set in a *gold* antique ring; and have never met with any in rings of silver. Pastes thus set in antique bronze ornaments are almost the only kind I am disposed to consider as truly of ancient manufacture; as we have already noticed under the head of "Pastes." Stones rudely engraved are often set in the rings of this metal; and like those of silver, they were often made solid, with the device cut on the face, of which examples occur of Etruscan and Greek times. When the wife in the *Ecclesiastus* talks of having a counterpart of her husband's signet-ring made for her own use for the small sum of half a drachma, she must mean one of bronze.² Although such early examples are naturally rare, yet of the Roman times they abound; the most curious of the latter that I have met with is a very massy one preserved among the Rutupine antiquities in Trinity College Library. Its face bears the letters **F** and **E**, arranged in a square as a mono-

² *Sealing up pantries*.—Diogenes Laertius tells an anecdote illustrative of the simplicity of Lacydes the philosopher, that, whenever he had occasion to bring anything out of the pantry, after sealing up the door, he used to throw his ring into it through a hole in the door, for fear lest it should be taken off his finger when asleep, and used for resealing

the same door after the contents had been pilfered. But his servants, noticing this sapient device, soon found that, by exactly imitating his method of proceeding, they might help themselves with all security, and resealing the door, replace the signet in the same manner as the sagacious philosopher.

gram, and the outside of the shank is engraved with the inscription *STIMIVR~~AM~~ATO*, where the device probably stands for "Feliciter," "Good luck to you ;" and the legend "Stimius Amato N," "Septimius to Amatus," is curious from the very late form of the final *S* and *A*, which apparently belong to a later period than that of the departure of the Romans from this island. The entire ring has been strongly gilt.

Roman bronze ornaments may be distinguished from the latton or brass of similar shapes belonging to mediæval times, so abundantly discovered in the earth of every old town, by an examination of the metal, for Roman relics are invariably composed of bronze (copper and tin), whilst those of the Middle Ages are made of "latton," that is "*brass*" (copper and zinc). Bronze when polished has always a brownish hue, and is very hard; whereas latton is more of a gold colour and much softer.

In *Lead* rings occur, though they are very rare, and even set with intagli of a good style of art and of early date, but such were doubtless gilt originally, and intended to pass for massy gold. A device which reminds one of the trick played by Polycrates upon his Spartan auxiliaries, whom, on quitting his service, he paid off in Samian gold pieces, which he had coined for the purpose in lead gilt. A singular fraud of some rogue of antiquity accidentally came to light in a ring in my own collection. It was hollow, and formed out of strong gold plate of very ancient Greek work, and set with a Sard intaglio, a full face of Jupiter Ammon. From the subject, and from the style of art, it may safely be ascribed to some citizen of Cyrene, a State in which, according to Eupolis (Aelian, xii. 30), "the poorest man had signet rings worth ten minae (30*l.*), and the artists engaged in engraving gems were to be wondered at."³ The gem in question always had pro-

³ He does not say whether for their numbers, or for their skill.

jected slightly from its setting; and on one occasion adhered to the wax on which it was being impressed, and thus came out of the ring, when it appeared that the hollow behind had been filled with thin leaf-lead, retaining its form, but reduced by age to a brittle oxide; a change which must have been the work of many centuries to effect. We know that Cyrene was a favourite residence of the Jews from the very time of its foundation: may we not have here an instance of a fair advantage in a bargain contrived by some individual of the Chosen People to obtain a few drachms more for his ware from some unsuspecting Gentile?

Having now exhausted the subject of rings in all metals set with intagli, either in stone or paste, a fitting conclusion will be a brief notice of those, belonging usually to the Lower Empire, having, instead of an intaglio, a gold coin of the reigning prince ingeniously inserted in the bizzel. A fine specimen is given by Caylus, V. cxii., of one of elegant form, the broad shoulders being cut into an elaborate pattern of open work, the head octagonal, and holding an aureus of Maximinus: *REV. VICTORIA GERMANICA*. A very similar one, but of still more tasteful design, in weight one ounce, and set with an aureus of Severus Alexander, was found a few years back in this country. This had probably been the official ring of some Roman officer serving in Britain, and corresponding to the "*Annulus bigemmeus unciarius*" assigned to Claudius Gothicus as tribune of the Fifth Legion.⁴

It was no doubt the impossibility of obtaining good portraits engraved on gems, of the reigning emperors, that suggested the setting of the aurei with their likenesses in these massy

⁴ I have lately seen another equally massive, but of the rudest fabrique, set with an aureus of Diocletian. *REV. VIRTUS MILITVM*. It will be observed that aurei having reverses

relating to the army have been purposely selected in all these instances: another argument that they were military distinctions.

gold rings, evidently from their intrinsic value the ornaments of persons who, at an earlier period, would have worn a cameo or intaglio portrait in the same way, of the most admirable execution. But the art of engraving gems with any degree of skill appears to have expired, as it were, all at once, the last imperial portrait of fine work mentioned in any collection being one of Constantinus Junior; a fact the more strange when we consider that the medallions of this family are by far the most abundant in the whole series, whilst they are by no means contemptible as works of art; and from the manner in which they are found mounted with loops for suspension, were evidently designed to be used as personal ornaments. The total disappearance of the statues of the later emperors is more easily accounted for by the fact, that metal statues, usually gilt, were alone considered worthy to represent the form of the sovereign in that age of advancing barbarism. There is but *one* marble statue of Constantine at Rome, and *one* solitary bust of Julian; the last a most wretched production of expiring art. Now, not merely do the later historians make mention of statues of the emperors of those times, as set up in every large city, as of Theodoric and even Phocas at Rome, and of Justinian, and other celebrities of his reign at Constantinople; but they even allude to numerous bronze statues of poets, warriors, and advocates, the contemporaries of these emperors. All these, on any change of government, went at once into the furnace and re-appeared in the vile coinage of the epoch. This circumstance, besides the roguery of the coiners, may explain the great proportion of lead in the later bronze coins, such as the huge pieces of the sixth and seventh century; for Pliny states that a considerable proportion of this metal entered into the composition of statuary bronze in order to render it more fusible. Long after the art of

sculpturing marble was quite extinct, works in bronze, of considerable size and skill, were executed by Byzantine artists: witness the numerous doors of churches still existing, and dating even from the ninth and tenth centuries. In the best period of Roman art, marble seems to have been preferred to bronze for portrait statues—a fortunate circumstance, to which we owe the preservation of so many treasures of ancient art. Pausanias mentions 4000 statues of Hadrian alone, collected in the precincts of the Olympeium at Athens, the votive offerings of the same number of Grecian cities: no wonder that statues of this prince are still so numerous. Pliny, in his description of the Colossus of Nero, the work of Zenodorus, the most skilful statuary of the time, says that the execution of it proved the art of casting bronze to have been entirely lost: a strange statement probably referring to some defects in the finished cast, or faultiness in its colour.⁵ For there still exists, in the cortile of the Senator's Palace on the Capitol, a colossal bronze head of Nero, of admirable execution, which to all appearance completely refutes the assertion of Pliny as to the incapacity of the metal casters of that epoch.

⁵ This may have been merely an exaggerated mode of expression to signify the badness and honey-combed quality of the metal when cast; just as one might say at present (1859) the art of bell-founding is entirely lost in England, seeing the two successive failures of the Great Bell of Westminster.



Signet and monogram of Paulus. Sard.

FIGURE RINGS.

The fashion of wearing figures of Egyptian deities on the fingers, derided by Pliny, has left us a beautiful example, which is now preserved among the scarabei in the British Museum. Three busts, of Osiris, Isis, and Horus, of Roman-Egyptian work, and admirably executed in fine gold, are arranged side by side, so as to form the head of a ring, to which they are set on at a right angle; one exactly similar is given by Caylus, as well as another, in which the busts of Osiris and Isis form the opposite ends of a shank, and are so brought together as to lie side by side, the heads pointing in opposite directions.⁶ These rings composed of deities remind one of those common in Italy, and made of a crucifix so bent that the stem and upper limb of the cross meet together at their extremities and form the shank, so that the crucified figure becomes the most conspicuous portion of the ring. How strangely do the usages of the most remote ages and countries coincide in particular instances, especially in matters connected with religious worship. Again, the Hindoo lady generally wears on her finger a small mirror, set in a ring, so that she may be able to while away an idle hour in the pleasing contemplation of her dusky charms; whilst *here* certain fashionable prayer books of the best class are bound up with looking-glass linings to the covers, so as to enable the fair Christian devotee to support the infliction of a tedious service, or a dull sermon, by the aid of reflections of a more agreeable nature.

⁶ A most interesting and unique ring of solid gold and elegant form, in the collection of an acquaintance, has set upon its face, instead of the figurine of a god, a small temple, a pyramid of four degrees, with a door in each of the lowest faces, the passages thus formed intersecting each other on the centre of the edifice. On the flat top of the pyramid is a panther in intaglio.

These aids to devotion recall the decade rings of mediæval times. These are often found of brass, but sometimes made of silver, and are readily known by their having ten projections like short cogs on their circumference, representing so many *Aves*, whilst the round head, engraved with *I.H.S.*, stands for the Pater Noster. They were worn by the pious of old times, and could be used at night, in place of a rosary, by the wearer if he felt disposed to tell his beads.

PAPAL AND EPISCOPAL RINGS.

From the earliest period of the Middle Ages, the symbol of investiture with the office of bishop has been a ring set with a Sapphire or Ruby, and worn on the fore-finger. The real origin of this custom is not known, but probably was derived from the practice of the Empire, by which a ring was given to a military tribune on his appointment, and, in fact, as early as the age of Juvenal, had become the symbol of the office itself;⁷ and we have seen from the letter of Valerian that it was of a "regulation" weight and description. That the bishop's ring is a type of his mystical union with his diocese, is a subsequent interpretation due to the fancy of some mediæval ecclesiastic who, like Durandus, could espy a symbol in everything, even in a bell-rope. To the same source belongs the reason assigned for the choice of the gem with which it is set, and mentioned by Vossius, *De Physiologia Christiana*, VI., 7. "The Sapphire is said to grow dull and lose its colour if worn by an adulterer or a lascivious person." And, c. 25, he adds, "The Sapphire worn in a ring, or in any other manner, is said to check lust, and for that reason is proper to be worn by the priesthood, and all persons vowed to perpetual chastity." But the true reason

"Semestri vatum digitos circumligat auro."—*Sat.* VII.

for the choice of the Sapphire (or ancient Hyacinthus), besides its supposed sympathy with the heavens, mentioned by Solinus, and its connection with Apollo the god of day, was its violet colour, agreeing with the vestments appropriated to the episcopal office.

The bishop's violet represents the inferior purple, Conchylia, or Hyacinthina of the Romans; a colour which Pliny compares to that of the "angry sea," a very dark violet indeed, as any one will remember who has sailed on the Mediterranean in rough weather. The scarlet of the cardinal's robes is the true Tyrian dye, "the colour of clotted blood; dark when looked at directly, but brilliant when held above the eye;"⁸ and the "purple ink," with which the emperors signed their names to all documents, is, as plainly appears in the Byzantine charters preserved to the present time, of a bright scarlet colour. Hence the robe in the *Passion* is by one evangelist called purple, by another scarlet.⁹ I therefore think it probable that, when such mediæval rings occur set with a Ruby instead of a Sapphire, they have belonged to bishops who were at the same time, cardinals.

These rings were often, perhaps always, interred with the prelates to whom they had belonged. Two were found a few years ago in the coffins of ancient bishops of Hereford; others found under similar circumstances are preserved in the library of York Cathedral; and they often occur in collections, obtained, no doubt, from the accidental desecration of episcopal sepulchres. The one discovered in the stone coffin of a bishop of St. Omer was entirely of gold, the head

⁸ Laus ei summa in colore sanguinis concreti nigricans aspectu, idemque suspectu refulgens. Unde et Homero purpureus dicitur san-

guis.—Plin. ix. 62.

⁹ χλαμυδα κοκκινην, Mat. πορφυραν, Mark.

formed of three trefoils, combined together in a very tasteful pattern.¹⁰

The custom of burying ecclesiastics together with all their official insignia, appears to have lasted far down into the Middle Ages, for amongst the amusing adventures of Andreuccio da Perugia, related by Boccaccio, he, when reduced to despair, joins some thieves in plundering the tomb of the Archbishop of Naples, interred the previous day in all his precious vestments, and with a ring on his finger valued at 500 scudi. Two parties of plunderers, the last headed by a priest of the cathedral, visit the tomb in succession, and almost at the same time, to which circumstance Andreuccio owes his escape from a horrible death, and returns home in possession of the ring, which more than makes up for all his losses.

At one time it seemed to me probable that this common practice of plundering the tombs as soon as the corpse was deposited therein, even by the very parties who ought to have most religiously guarded the sacredness of the treasure, gave origin to those huge rings of gilt metal so often seen in cabinets of antiques, bearing either the titles or the coat of arms of some pope or bishop. As none that I have met with are of earlier date than the fifteenth century, one was almost led to the conclusion that the universal violation of the sanctity of the tomb, even by the supposed guardians of it, had induced the friends of the deceased prelates to substitute these counterfeit insignia of their rank for the real ones, which had been found to offer such irresistible temptations to the plunderers. That these metal rings were occasionally

¹⁰ One of the earliest, if not the earliest extant, has lately been shown me, said to have been found with other insignia in the tomb of the Abbot of Folleville, near Amiens, in 1856. It is set with a large rough Sapphire, is made of *electrum*, and hollow, and entirely covered with the elegant guilloche pattern so constant in Romanesque ornamentation.

deposited in tombs appears from these words of Palatin; *Gesta Pont. Rom.*, III., 653. "A. S. 1607. In sepulchro Sixti IV. repertus est annulus Pauli II., cum hac nota, PAVLVS II." This ring was sold (for 7 guineas) in Roby's collection of miscellaneous works of art, by Christie and Manson, May 3, 1855. In the catalogue of Major Macdonald's Collection, sold by Sotheby and Wilkinson, Ap. 20, 1857, No. 9 is "A large ring of gilt bronze set with Amethyst, with raised figures in high relief, and finely chased. It formerly belonged to Pope Boniface, from whose tomb it was taken during the popular insurrection in Rome, 1849." But here it will be as well to give a more minute description of these rings, which may also serve to direct the attention of antiquaries to any allusions to the use of them occurring in mediæval writers, or to the circumstances under which they may be brought to light at the present day. They are of very large dimensions, and evidently never designed to be worn upon the finger; some I have seen which must weigh nearly a pound;¹ they are all of the same form, the shanks being four-sided, and the head square, and set with a slab of Crystal or pale Amethyst, or sometimes with a piece of glass of that colour. The upper part of the shank usually bears the shield of the owner on one side; on the other some religious design, as the emblems of the evangelist. These ornaments are cut out of the metal in high relief, and often in a good bold Gothic style. On the outside of the narrow part of the shank an inscription is often found in Gothic letters, giving the title of the owner, as EPIS. LUGDUN: but they more frequently are without any inscription, and appear always to have been strongly gilt.

One of the most eminent archæologists of the present day

¹ Preserved in the Bronze Room of the Uffizi, Florence.

is of the opinion that they served as credential rings to authenticate the mission of any person despatched upon the business of the owner, and that they had no connection with the ring of investiture, a valuable jewel, and one always retained by the prelate, both in life and death. This theory is supported by the fact, that duplicates of these metal rings, belonging to the same individual pope or bishop, are still in existence, which certainly would not have been the case had merely a single one been made for the sole purpose of accompanying the corpse within his last resting place. In the *Archæological Journal* of some years back is figured a ring of this class (but entirely without ornamental chasing on the sides), set with a square crystal, and inscribed on the upper part of the shank, ROGERII REGIS, probably one of the Neapolitan kings of that name.² This is the earliest instance known to me, and confirms the hypothesis that these rings served merely as credentials to the envoys of their possessors. It is curious that, with these two exceptions, they should all have belonged to ecclesiastics of various ranks. At present this class of antiques is extensively forged in Germany, as well as all other varieties of mediæval seals and signets; the high price they command from collectors of the relics of the Middle Ages is a great temptation to the manufacture, which also presents but little difficulty to a skilful worker in metal. Hence all objects of this kind which appear without a well-authenticated pedigree ought to be examined by the amateur with a very suspicious and critical eye.

² Another lately seen by me has a Fleur-de-Lys on one side, and a crown (apparently of the 14th century) on the other, marking its French and regal origin.



Serapis: Roman. Cameo.

USE OF ANTIQUE GEMS IN MEDIÆVAL TIMES.

The foregoing dissertation naturally introduces the subject of the mediæval seals and rings, which are so often found set with antique intagli for the purpose of signets. The subjects engraved upon them were always interpreted by the owners as representations of scriptural personages and events. Thus a triple mask stood for the Trinity, with the legend added



Triple Mask: Roman. Jacinth.

around the stone, "Hæc est Trinitatis Imago;" and a similar intaglio I have seen, a Jacinth, set in a massy gold ring, with "Noel," the corruption of Emmanuel, repeated on each side of the setting, evidently in a similar sense. Isis nursing Horus naturally passed for the Virgin and Child; nor was this substitution confined to intagli alone, for the "Black Virgins" of certain French churches (revered from the earliest period of the Middle Ages, but unfortunately destroyed in the general wreck of everything ecclesiastical in 1794), were discovered by Montfaucon to be basalt figures of the above-named Egyptian deities, which, having merely

changed names, continued to attract the devout to their temples as before. The common type of a Muse holding a mask, did duty for Herodias with the Baptist's head in her



Jupiter Olympius: Roman. Sard.

hand; and St. John the Evangelist was represented by the figure of Jupiter with the eagle at his feet. Silenus with his crooked stick was appropriately transformed into some croziered abbot; whilst cupids made very orthodox angels. The bust of Serapis passed always for the portrait of Christ; and every one who has paid any attention to the representations of this mysterious divinity, characterised as they are by a grave and pensive expression, so different to the open and genial air of the Greek and Roman Jupiter, will feel convinced that the countenance of Serapis, and not the pretended letter of Rufus to Tiberius, supplied the original type for the portraits of our Lord. The description of the Alexandrians, given by Hadrian in his letter to Servianus (*Vopiscus in Vita Saturnini*), seems to tend to an elucidation of the origin of this interchange of representations between the old and new Faith. "Those who worship Serapis are also Christians, and those who style themselves the bishops of Christ are devoted to Serapis. The very Patriarch himself, when he comes to Egypt, is forced by some to adore Serapis, by others to adore Christ. There is but one God for them all,—him do the Christians, him do the Jews, him do all the Gentiles also worship." The Jewish prejudices entertained by the early Christians were so powerful, that such portraits were not

admitted into their churches until a very late period; and any traditional description of Christ's personal appearance must in a generation or two have become much too vague to serve as any guide to an artist.³ Sacred plate of the Middle Ages was enriched with swarms of intagli, a practice common enough long before under the Empire, for Juvenal laughs at the person who transferred the gems from his rings to the exterior of his drinking vessels:—

“ Nam Virro ut multi gemmas ad pocula transfert
A digitis.”

Caylus gives figures of several of the greatest merit, both camei and intagli, selected from nearly three hundred, at that time (1760) preserved set in the sacred vessels⁴ and ornaments belonging to the sacristy of Troyes Cathedral. The shrine of the Three Kings of Cologne, a work of the eleventh century, has some admirable camei set in its two ends, and its sides are studded with engraved gems of all sorts. For the subject of one of them (a Leda and Swan) the devotees of the period must have been puzzled to find a scriptural parallel. But it is needless to particularise these works, as every collection of documents of the Middle Ages will display, in their seals attached, abundant evidence of the universality of the custom. The parchments preserved in the muniment room of Corpus Christi College, Cambridge, have a great number of impressions from antique intagli set in the personal seals of the donors and attestors of the various

³ Epiphanius (*Hæres.* xxvii.) brings it as a grave charge against the Carpocratians, “that they had painted portraits, and even gold and silver images, and of other materials, which they affirmed to be portraits of Jesus, and made by Pilate after the likeness of Christ at what time he sojourned amongst men. These they keep in secret along with others of Pythagoras, Plato, and Aristotle, and

setting them up all together, worship and do sacrifice unto them after the gentile fashion.”

⁴ The greatest part of these gems were small intagli on Carnelian, and set in a chasme containing a tooth of St. Peter, and the head of St. Philip, made by order of Bishop Garnier, Almoner to the Crusaders at the taking of Constantinople, whence he stole the skull of the Apostle.

deeds ; amongst which, however, very few occur of any merit as to workmanship, being generally of late Roman date. I have seen a small rude intaglio of Pax, surrounded by a mediæval legend RICHARDVS ESP, which had been regarded by the German antiquaries, in which country it had been found (at Ratisbon), as an invaluable relic, being the very signet of Richard Cœur de Lion !

Lapidaria or Treatises on Gems still exist, describing the benefits that accrue from the possession of stones sculptured with certain figures. Their virtues are deduced from the meaning supposed by the authors of these treatises to be implied by the engraving on the gem ; and both grounds and inferences are, it is needless to say, in most cases ridiculously absurd. The mode in which they express themselves on this point would lead one to conclude that they considered the stone and figure to be a natural production, and not a work of art ; an idea the more admissible if we reflect upon the great length of time during which the art of gem-engraving had been totally unknown in Europe. The last intaglio known, of any merit as a work of art, is the famous Sapphire of Constantius, in which that emperor is represented spearing a wild boar in the neighbourhood of Cæsarea, that city being typified by a female reclining on the ground. The rude works of the Gnostics may have been executed for a century or two longer, for the tomb of Maria, wife of Honorius was found, when opened, to contain several, buried with that princess as amulets, in spite of her orthodoxy ; with the notion no doubt that they could do the deceased no harm, and *might* possibly be of service to her in her passage to the next world, as we shall see when we come to treat of the class of Abraxas gems, a barbarous but highly interesting series of intagli. We have already noticed the signet of Mauricius, who reigned 582 to 602, but I cannot vouch for the genuineness of the stone, for it has much the air of a work of the Renaissance.

I have, however, met with an account of a most interesting intaglio, the authenticity of which is indubitable, and which brings down the traces of the existence of the art of engraving on gems some centuries lower than is generally allowed; to the examination of which the next article shall be devoted.

CROSS OF KING LOTHARIUS.

This cross, itself indubitably a work of the Carolingian period, but mounted upon a silver-gilt foot of very elegant design in the taste of the fifteenth century, is preserved in the treasury of the cathedral of Aix-la-Chapelle, and affords some singular illustrations of certain points already treated of in these pages. The surface of the gold is ornamented with arabesque tracery, and studded thickly with gems set close together in plain raised collets. These consist of Pearls, Rubies, Sapphires, Amethysts (one an intaglio of the Three Graces), and *Emeralds*; another convincing proof, if any were needed, of the common use of the last gem in ancient times. At the intersection of the arms of the cross is placed a magnificent cameo on Onyx, about 3 inches high and $2\frac{1}{2}$ wide, representing the laureated bust of Augustus holding an eagle-topped sceptre; a work of the highest merit. But the most interesting feature that presents itself to our notice in this early relic of the first dawn of mediæval art, is the signet of Lotharius himself, set in the lower part of the stem of the cross, immediately beneath the cameo of Augustus. It is engraved on a large oval piece of rock crystal about $1\frac{3}{4}$ inches high by $1\frac{1}{2}$ wide, and represents the bust of that king, his head covered with a close-fitting helmet with a slightly projecting frontlet, like those of the latest Roman period. Around the bust runs this legend, in well formed Roman letters,—

† XPEADIVVAHLOTHARIVMREG

“O Christ, defend King Lothaire.”

The execution of the engraving is very tolerable ; far better than could have been expected at that date, A.D. 823, especially when we consider the rudeness of the coinage of the same period. It is not the work of the Byzantine school, for the characters of the legend bear no resemblance to those employed by its artists, but are precisely the same as those seen on the Frankish stone and metal work of the time of this monarch. This is by far the latest intaglio of ascertained date, of which I have been able to find any trace ; and its existence supports the opinion previously expressed, that the art of engraving gems lingered in Europe to a much later period than is generally supposed.

This most splendid specimen of ancient jeweller's work is admirably figured in the magnificent '*Mélanges d'Archéologie*,' Vol. I., par MM. Cahier et Martin.

PROFUSION OF JEWELLERY WORN BY ROMAN LADIES.

"I have seen," says Pliny, ix. 58, "Lollia Paulina (once the wife of the Emperor Caligula)—though it was on no great occasion, nor was she in full dress of ceremony, but merely at an ordinary wedding party—I have seen her covered all over with Emeralds and Pearls shining in alternate rows, over all her head, her hair, hair-fillet, ears, neck, necklace, and fingers ; the value of all which united amounted to the sum of forty millions of sesterces (400,000*l.*) : a value which she was ready to attest by the vouchers for the prices paid. Nor were these jewels the presents of an extravagant prince ;—they were, on the contrary, family heir-looms, that is to say, bought with the spoils of provinces. This was the result of peculation,—this the end for which M. Lollius made himself infamous all over the East, by taking bribes from princes ; and at the last drunk poison when C. Cæsar, the adopted son of Augustus,

had renounced his friendship : all for this end, that his granddaughter might show herself off by lamp-light covered over with the value of forty millions of sesterces ! Let any one now count up on the one side the sums carried in triumph by Curius or Fabricius, let him picture to himself their scanty dishes ; and on the other side, Lollia, a wretched female, a tyrant's plaything, seated at the feast ; would he not have preferred that they should have been dragged down from their triumphal cars, rather than have been victors for such a result as this ?”

Claudian enumerates among the treasures left by the Emperor Theodosius to his two sons :—

“ *Quin et Sidonias chlamydes et cingula baccis
Aspera, gemmatasque togas, viridesque smaragdo
Loricæ, galeasque renidentes hyacinthis.*”

“ Sidonian mantles rich with purple fold,
Belts bossed with pearls, robes stiff with woven gold,
And helmets shining green with emeralds bright,
And breastplates rich with precious sapphires dight.”

In illustration of the last lines it may be observed, that Constantine often appears, on his small brass coins, wearing a helmet studded with gems set together as closely as possible. This passage also supplies another argument in favour of the identity of the Hyacinthus with our Sapphire, as that stone is found more abundantly used than any other in the decoration of the jewellery of the latest Roman age, in the few instances (to be described in the next article) that have been preserved to our times. Here, too, it may be observed, that these ornamental helmets of the latter empire were the origin of the imperial crown in its present shape, the gradual transition of form being easily traced upon the coins of the Byzantine Cæsars.

CROWNS OF THE GOTHIC KINGS OF SPAIN.

A brief notice has been already given, under *Emerald*, of the Iron Crown of Monza, and that of King Agilulph. But these have been altogether eclipsed, both in value and in interest, by the discovery of eight crowns in solid gold, of the intrinsic worth of 2000*l.*, lately discovered in clearing away a deserted cemetery at Fuente di Guerrazar, two leagues from Toledo. The most important, that of King Receswinthus, A.D. 653, is a circle of fine gold one foot in diameter, set with 30 huge Rubies and 35 Pearls, alternating with Sapphires. The circle is edged by two borders, adorned with a running pattern of Greek crosses made of pieces of Carnelian,—*cloisonnés* in gold. From 24 little chains hang these letters, of gold, incrustated with Carnelians, like the border,—

† RECESVINTHVS REX OFFERET.

From the letters again hang 24 pendeloques in gold and five Pearls, and support 24 pear-shaped pink Rubies, forming a fringe all round the crown. Lowest of all hangs a magnificent cross, of elegant form, set with very large gems, and having three pendants from the arms and foot.

The second crown, supposed to be the queen's, is set with Rubies, Sapphires, Emeralds, Opals, and large Pearls, and has a fringe of Rubies and a pendant cross, but is altogether of a plainer make than the first.

The other crowns are much simpler, and are set with but few stones; they probably were those of counts and barons of the time. On one is the inscription,—

INDNI	MARIE
NOM	INS
INE	ORBA
OFFERET SONNICA	CES
SCTE	

which records its dedication by Sonnica to Santa Maria di Abaxo, a church at the foot of the hill on which Toledo stands.

CROWN OF HUNGARY.

This most venerable relic of Byzantine art is formed of a broad flat circlet of fine gold, from which spring four arches supporting a cross. It was sent, A.D. 1072, by Michael Ducas, Emperor of Constantinople, to Geisa I., Duke of Hungary, or, as he is styled in his enamel portrait placed above the circlet, "Geabitrás, king of the Turks." Next comes a portrait of Constantinus Porphyrogenitus; then one of Ducas himself; the fourth and largest enamel represents Christ seated, exactly as he appears on the bezants of the period. These four portraits are placed at the springing of the arches that close the top of the crown; on the front of the circlet itself are fixed four smaller enamels of Michael, Gabriel, St. George, and St. Demetrius.

Above the medallion of Christ is a large heart-shaped Amethyst, below it is a huge rough Sapphire; four large Sapphires are also set equidistant on the circlet, all of them, but one, being unpolished. The edges of the circlet are closely studded with Pearls set touching each other in a row. The large Sapphire at the back is surrounded by four green stones, cut in an oblong form, but their precise nature cannot be ascertained. In the deed by which Queen Elizabeth of Hungary pledged this crown to the Emperor Frederic IV., the stones are enumerated as 53 Sapphires, 50 Rubies, one Emerald, and 320 Pearls. Here is another proof of the early existence of the Emerald in Europe, and of the correctness of the opinion as to the real nature of the Hyacinthus, for what other gem, to judge from Claudian's account of the robes and armour of Theodosius, should we expect to see so lavishly employed as this in decorations of the Byzantine age?

RING OF THE GREAT MOGUL.

Before quitting the subject of ancient jewellery, I cannot refrain from giving a brief description of an ornament, which, though not antique, exemplifies the Oriental idea of magnificence more fully than any example that has ever come before me. This was a monster ring presented two centuries ago by the Great Mogul to the only envoy of the Emperor of Germany who ever visited his court. The very first sight of this jewel sufficed to convince one that it could have had no other origin than this, such a show of barbarian splendour did it exhibit, forming in itself a complete cabinet of every kind of precious stone of colour to be found within his dominions. Its form was that of a wheel about three inches in diameter, composed of several concentric circles joined together by the spokes radiating from the centre, in which was set a large round Sapphire; the spokes, at all their intersections with the circles, have collets soldered on them, each containing some coloured gem; in fact, every stone of value, except the Diamond, occurs in this glorious company. On the back is fixed the shank, and when worn it covers the whole hand like some huge mushroom.

Strange to say, this same pattern is found in an ornament of a very different origin—a Roman fibula discovered at Shefford, Bedfordshire, and now in the collection of the Cambridge Antiquarian Society. It is composed of bronze gilt, and is about eight inches over, and formed of three concentric circles connected as in the ring, all set with large pastes imitating Emeralds and Amethysts. The gilding is still very perfect, and the colours of the pastes remarkably good and brilliant. The form of this fibula is perhaps unique, but there can be little doubt of its Roman origin, having been found together with many relics of that period, such as

Samian ware and other pottery. This is another singular instance of the persistence of ancient types in the East, which strikes us so forcibly in the examination of the Etruscan and Greek gold work, much of which might have been but yesterday brought from India, the same lightness of material and delicacy of execution, as well as similarity of "motive," characterising the productions of ages so widely separated.



Attributes of Ganymede. Roman. Cameo Onyx

STATUES ADORNED WITH JEWELLERY.

At a late period of the Roman Empire, the practice had become common of adorning the statues of the gods with articles of jewellery, such as would be worn by wealthy personages of the time. Of this custom we find no traces in former ages, for the gold and gems that decorated the statues of the flourishing periods of the arts were employed in the actual construction of the figure or of its drapery and accessories. Zosimus ascribes the tragic end of Serena, the widow of the great Stilicho, who was strangled by the orders of the wretched Honorius (or rather of the eunuchs who governed him), to the vengeance of the goddess Vesta, whose statue she had despoiled of a most valuable necklace of precious stones. This was done at the time the temple was deserted by its former guardians, in consequence of the confiscation of its revenues. Hence Zosimus (a devout adherent to the ancient faith), whilst lamenting the fate of so excellent

a matron, cannot refrain from pointing out the justness of the punishment "which encircled with the cord that very neck previously adorned with a necklace obtained by sacrilege from the most venerable of the Roman shrines." The priests of old, in the Eternal City, must have had greater faith in the devotion or the honesty of the worshippers, than is manifested by their successors of the present day, for although some of the Madonnas, especially that dell' Annunziata, seem one blaze of jewels, the gifts of devotees of every age and country, yet they are in reality nothing but false stones. The guardians of the churches themselves confess the substitution, and affirm, that to guard against *accidents*, every real offering is represented to the public view by a fac-simile in paste, whilst the originals are deposited for safety in the sacristy of the convent, though it is shrewdly suspected by the natives that the originals would not be forthcoming if demanded, having, immediately on their dedication, been converted into a form more applicable to the requirements of the "living temples." The sacred vessels of the sacristy of Cologne Cathedral blaze with a profusion of precious stones, which even to the eye of the casual inspector, appear too brilliant to be genuine, and have much the appearance of recent pastes. I have also been informed, by a person of the greatest skill in antique gems, that the large Onyx camei, already mentioned as decorating the ends of the shrine of the Three Kings, are not of stone but of coloured paste. If this be true, it affords strong grounds for suspicion that the originals have been abstracted at some time within the last three centuries; moved from their place by the potent arguments of some wealthy collector, and copies in paste substituted for them; a fraud not difficult of execution, as the shrine is deposited within a very gloomy enclosure, and can only be examined by means of a hand-lantern, for which permission a consider-

able fee, one thaler, is charged. The devout but poor worshipper can only contemplate the open front of the shrine which contains the sacred skulls, from without, and at some distance, through a grating; so that any tampering with the ornaments of the sides of the shrine might be carried on without any fear of detection.

The sacrilege of Serena recalls a curious circumstance connected with the downfall of the ancient worship at Rome. The zeal of the Christian populace, as long as the Empire lasted in the West, was only allowed to vent itself upon the more disreputable deities of foreign origin, such as the Egyptian monsters, against which even the Senate had in earlier times waged vigorous war; and against other religions introduced from barbarian regions, like Mithras and his host destroyed by the onslaught of Gracchus, so highly lauded by the irascible abbot of Bethlehem. The ancient deities of Italian origin appear to have remained unmolested as long as the Empire endured. The temples were indeed closed to worshippers, and their revenues sequestered, but the buildings and statues remained as decorations to the city. On the other hand, the figures symbolizing abstract ideas, such as Victory and Fortune, had still a certain degree of respect paid to them. The melting down by Palladius of the gold statue of Virtus, in order to buy off the threatened attack of Alaric, was even regarded as an unpardonable offence, and a sure omen of future ruin, by the almost wholly Christian population of Rome. The figures of the goddess Roma and of Victory appear some centuries later on the coins of the most orthodox and fanatical Byzantine emperors. Even in the reign of Constantius, a persecuting bigot, we read of the Consul sacrificing in the temple of Castor and Pollux at Ostia, when contrary winds locked up the corn-fleet in the harbours of Africa, and threatened the city with famine. But

on other occasions also, the new converts, when reduced to despair, had recourse to the expedients of the ancient faith, sanctified by so many centuries of uninterrupted victory. Thus during the last siege by Alaric, when all hopes of defence had failed, on a rumour that the citizens of Nepi had repulsed the Gothic besiegers by means of a thunderstorm raised by the rites of some Etruscan Haruspices, the Senate was anxious to try the effect of the same invocations, and had even obtained the consent of the Bishop Innocentius to such a scandalous proceeding. He, as Zosimus observes, was ready to sacrifice his creed to his country; but when the Etruscan priests, rejoicing no doubt in his confusion, insisted on the proceedings being conducted publicly, and in the Forum itself, his pride of office came to the aid of his faith, and he allowed the business to go no farther. As an illustration of the preceding remarks a brief notice will not be out of place of the numerous figures of Rôma (often cut on plasma), as well as of Victories and Eagles, usually mere scratches, and so rude as to be hardly recognisable, even when engraved on fine gems, and which may safely be attributed to the very last ages of Roman power. These rude intagli will often be found set in massive gold rings (in fact, as a rule, the more valuable intrinsically the setting, the less so is the gem as a work of art), evidently the ornaments of the wealthiest classes of the time, and who, had anything better, in point of execution, been then obtainable, would certainly have procured it to adorn such costly decorations. From the circumstance that only such miserable attempts at engravings were then to be procured by the most liberal patrons, we may conclude how nearly the art had declined towards the period of its total extinction.

I have already noticed the rarity of imperial portraits in intaglio after the time of Caracalla. Even the miscellaneous Herz Collection (the sole object of which was to assemble the

greatest possible variety of subjects, irrespective of material or of beauty) contained none of later date than the family of Severus. The Mertens-Schaafhausen Cabinet, so rich in portraits, affords however a highly interesting and unique design, the heads of Diocletian and Maximian, combined in the character of Janus, an apt allusion to their pacific rule. The same observation applies still more forcibly to cameo portraits, which, though abundant enough and of excellent style, of the time of Hadrian and his successor, entirely disappear in the next century with Severus, of whom some are extant, of considerable merit and in splendid stones. In fact, the only genuine cameo bust I have seen of a later date was one of Macrinus, and that of very inferior execution.⁵ The above-named collection possesses, indeed, a head of Valentinian, on a slab of Porphyry 4 inches by 3 in dimensions; but this, both from its size and material, must rather be designated a bas-relief than a cameo. Camei, however, reappear at a late period of the Byzantine empire, worked out in the same stiff and barbarous style as the religious subjects of the same date; and, like these, often disfigure and deface slabs of Sardonyx of extraordinary size and beauty.

⁵ A cameo of considerable size, said to have been found at Xanten on the Rhine, and apparently antique, presents a laureated bust of Constantine, enclosed in a civic crown; the whole worked out in flat relief, like the medallions of the time, in an inferior single-coloured Onyx: a most important monument of the expiring art.



Diocletian and Maximian as Janus Green Jasper



Antique Gem, with forged name of artist Mycon : Greek. Sand

SECTION III.—SUBJECTS.

REMARKABLE SIGNETS OF ANTIQUITY.

“ Graved on the gem the god of Love I see,
 Whose mighty force no mortal heart can flee ;
 With dext’rous rein he guides the lion’s might,
 Unnumber’d graces spring around to light ;
 In one hand grasped aloft the whip he rears
 O’er the rough neck, in one the bridle bears.
 The murd’rous god that tames the monster dire,
 How few of mortals shall escape his ire !”

MARCUS ARGENTARIUS, *Anthol.* IX. 221.

NEXT to the celebrated Emerald signet of Polycrates, the most famous is probably the Agate of King Pyrrhus, which is said to have been so marked naturally as to represent Apollo holding the lyre and surrounded by the nine Muses, each with her appropriate attribute. The natural veins and shadings of the stone must have been very much assisted either by art or by the very lively imagination of the beholder, to have drawn so complicated a design upon the small surface of a ring-stone ; although Agates do occur at the present day marked

with figures which it seems almost impossible to ascribe to a mere freak of nature. Amongst those in the British Museum is one representing the head of Chaucer covered with the hood, as in his well-known portrait, the resemblance of which is most extraordinary; and yet the pebble is evidently in its original state, not even polished, but merely broken in two. In the Florence Cabinet is a red and yellow Agate, the shades of which admirably represent a Cupid running; and a few other similar natural pictures are shown in the same collection. Among the gems at Strawberry Hill was a "*lusus naturæ*, a rare Egyptian pebble representing Voltaire in his night-gown and cap, set in gold;" also "another representing, with the utmost exactness, the portrait of a woman in profile, a rock behind her, and sky before, set in gold, and accounted very curious."¹ The examination of these "nature-paintings" supplies the explanation of an epigram by Claudian "On a table of Sardonyx-stone," which is somewhat obscure in consequence of its very flowery style of expression, and at first rather suggests the idea of a mosaic being intended by his description, though there can be no doubt it refers to the natural colours and veins of the stone tablet itself.

EPIGRAM XLIV.—*In mensâ de Sardonyche lapide.*

"Mensa coloratis aquilæ sinuatur in alis
Quam floris distinguit honos, similisque figura
Texitur, implumem mentitur gemma volatum."

"The coloured veins that o'er its surface stray,
An eagle's form with dusky wings portray;
With native hues trac'd on the flower'd stone,
A life-like figure in perfection shown;
Form'd in the gem the picture seems to fly,
And wingless cheats the wond'ring gazer's eye."

¹ Some others still more extraordinary of the Hope Precious Stones, are specified in the 'Description' by B. Herz.

This epigram also supplies another instance of the vast size of the slabs of Sardonyx obtained by the Romans; and this must have been the "gem," two of which made the draughtboard, "*tabula lusoria*," carried in the Triumph of Pompey, and which was four feet long by three wide.

Dio records that the head of Augustus, engraved by Dioscorides, was the signet used by his successors until Galba substituted for it his own family device, a dog, looking forth from a ship's prow. Sylla's favourite seal was the surrender of Jugurtha,² a subject no doubt represented thereon in the same manner as it is found on the reverse of one of his denarii, where the Roman general appears seated on an elevated platform, and before him are two men kneeling, one of them with his hands tied behind his back, while the other holds forth a branch, the emblem of a suppliant. According to Dio, xlii. 18, the Roman Senate refused to credit the news of the death of Pompey until Julius Cæsar produced before them his very signet-ring, which was engraved with three trophies, like that of Sylla's. The motive for selecting this device was the same in both cases, to commemorate the three principal triumphs of their military career. The Spaniard, whose father had fallen in a duel with Scipio Æmilianus, was so proud of the fact that he used for his signet a stone engraved with a representation of the combat; whereupon Stilo wittily inquired, what would he not have done if his father had killed Scipio, instead of Scipio's killing his father? Augustus at first sealed with a sphinx, having found two intagli of this design, and perfectly alike, among the valuables of his mother; and one of these, when absent from Rome, he used to leave in the hands of his deputy to authenticate any letters or proclamations that might be suddenly required by any

² Pliny, Nat. Hist. xxxvii.; my chief authority for the statements made in this chapter.

emergency to be issued in his name; but so many satirical remarks were made upon his use of a sphinx that he gave it up, and employed a head of Alexander the Great for his signet.³ That of Mæcenas was a frog, the sight of which, as announcing a contribution about to be levied, used to strike terror into people's minds. This famous patron of literature



Signet of Mæcenas. Etruscan Calcedony.

extended his favour to this branch of the fine arts, of which a testimony still exists in his portraits from the hand of Apollonius, of Solon, of Aulus, and above all of Dioscorides, which is the second in merit of the eight authentic surviving works of that engraver. How passionately Mæcenas loved gems, doubtless not merely for themselves, but for the art enshrined within their substance, appears from his lines upon the departure of Horace, for which loss, he says, not even the sight of his darling collection could console him:—

“ Lugen, o mea vita, te, Smaragdus
Beryllos neque, Flacce, nec nitentes,
Nuper, candida margarita, quaero :
Nec quos Thynica lima perpolivit
Anellos nec Iaspis lapillos.”

³ A Calcedony scarab in the Mertens-Schaafhausen Collection, engraved with a frog (both the beetle and the intaglio a highly finished work of an Etruscan artist of the best period), may be assigned, without much stretch of probabilities,

to some member of the powerful clan ΜΑΙΚΝΕ, the “regal ancestry” of Horace’s patron. That such devices, like our heraldic crests, were hereditary, appears from Dio’s notice of Galba’s hereditary seal.

“ Whilst I thy absence, O my life, deplore,
 Emeralds and lustrous Beryls charm no more ;
 No more, my Flaccus, can the brilliant white
 Of Indian Pearls as once my eyes delight :
 Nor can my favourite rings my grief beguile,
 Nor Jaspers polished by the Thynian file.”

Augustus also evidently alludes to his mania for collecting gems in the passage of a letter in which he thus mimics his affected style:—“Vale mel gentium, metuelle, ebur ex Hetruria, laser Aretinum, adamas supernas, Tyberinum margaritum, Cilneorum smaragde, iaspis figulorum, berylle Porsennæ, carbunculum habeas” (corruption of Carbuncule Arabice).—Macrob. ii. 4. “Farewell my ivory statuette from Etruria, my Aretine spice, my diamond of the Upper Country, my pearl of the Tiber, my emerald of the Cilnian clan, my jasper of the potteries, my beryl of King Porsena, my ruby of Arabia,” &c., joking him at once on his royal Etruscan descent (his weak point) and on this his favourite hobby. Ismenias, the celebrated flute-player in the reign of Alexander, having been informed that an Emerald, engraved with a figure of Amymone, was for sale at a town in Cyprus for six gold staters (six guineas exactly), commissioned a person to buy it for him, who made, as he thought, a good bargain, and brought back *two* gems for the same money; but Ismenias, instead of thanking him for his trouble, said that “he had done very wrong in lessening the dignity of the gem by beating down its price.” Alexander would not allow his portrait to be engraved on gems by any artist except Pyrgoteles; and from the manner of Pliny’s expressing himself, it would appear that the Emerald was the only stone selected for this honour.⁴ According to the account in Athenæus, the sophist

⁴ After his conquest of Asia, Alexander used the “ring of Darius” to seal his edicts to the Persians, his original signet for those

Athenion, on his return from his embassy to Mithridates, is carried in state into Athens, reclining upon a litter with silver legs and coverings of purple. He is lodged in the house of Dies, the richest man of the time, which is furnished for his reception with tapestry, pictures, statues, and a vast display of plate. Out of this house he used to strut, trailing behind him a splendid mantle, and wearing a gold ring engraved with a portrait of Mithridates. Here it may be observed that portraits of this king are of frequent occurrence on gems, for he seems to have been very popular in Greece, where he was no doubt hailed by the natives as a welcome deliverer from the burdensome yoke of Rome. His portrait appears, from the arrangement of the flowing locks, to be treated as one of Apollo, probably in allusion to his name, the equivalent of Heliodorus, "the gift of the Sun." He was certainly a prince who appreciated and encouraged the arts, for his coinage is amongst the most beautiful in the entire Greek series—a circumstance hardly to be expected at that late period; and

addressed to the Greeks. The device of this last was probably a lion, at least such was the figure on the signet with which Philip dreamed that he sealed up the womb of Olympias (a dream interpreted as the presage of the future greatness of the infant), and in commemoration of this dream, Alexander subsequently founded a city named Leontopolis. Moreover the sole coins, hemidrachms, bearing his *actual* portrait with the horn of Ammon, have a lion for the reverse. At this period every man had a fixed device for his signet, as well known, and as unvarying as a coat-of-arms at present; for we read of a conspiracy being detected, in consequence of a letter being brought to a

Greek officer, bearing an *unknown* seal, and which proved to be one from an agent of Darius. (Quint. Curt.)

Unfortunately no author has mentioned what was the device on the signet of Darius; although we labour under the "embarras de richesses" in the varying descriptions of the seal of Xerxes, authenticating his communications to Pausanias; for the scholiast on Thucydides, i. 129, says, "The signet of the King of the Persians bore, according to some, the portrait of the king himself; according to others, that of Cyrus the founder of the monarchy; and again, as others say, the horse of Darius, by reason of whose neighing he was made king."

he is the first monarch recorded to have formed a cabinet of gems. The Spartan magistrates in the time of Pausanias (the



Mithridates. Yellow Sard.

second century) used for their official seal the portrait of Polydorus, one of their ancient kings, but no reason is assigned why *he* was selected in preference to all the others. Arcius, King of the Lacedemonians, ends his letter addressed to the High Priest Onias thus:—"The seal is an eagle grasping a serpent in his talons" (Josephus, xii. 5). In the 'Amphitryon,' in the dialogue between Mercury and Sosias, we have,—

" Ubi ea patera nunc est ? *M.* Est in cistula
Amphitryonis obsignata signo. *S.* Signi dic quid est ?
M. Cum quadrigis Sol exoriens. Quid me captas carnufex ?"

" Where is the bowl now ? *Mer.* Lock'd up in my trunk,
Seal'd with Amphitryon's seal. *Sos.* Say what's the seal ?
Mer. Sol rising in his car. Why seek to entrap me,
Thou gallows-bird ?

It is probable that Plautus, whose plays are all adaptations of older Greek comedies, had some ancient authority for making this the device of the signet of the Argive king. The frequency of the portraits of Alexander the Great, upon gems of very different ages, arose from their being worn as amulets down to a late period. Trebellius Pollio, speaking of the family *Macriana*, says that the females wore the portrait of Alexander of Macedon, engraved on their hair-cauls, their

bracelets, and in their rings; and adds that it was a common belief that persons who carried about with them a portrait of Alexander in silver or gold, prospered in everything they did; and even so late as the time of St. Chrysostom, he mentions (Hom. ii.) the practice of wearing his bronze coins fastened to the head or feet, as charms to keep off sickness.

Cicero says (De Fin. v. 1), "I cannot forget Epicurus even if I wished it, for our friends have his portrait not only in paintings, but even engraved on their cups and in their rings." I once had a portrait of this philosopher, engraved in a late though still antique style, on a fine Sardonyx, with the characters $\begin{matrix} \text{E} \\ \text{I} \quad \text{KZ} \\ \text{II} \end{matrix}$ thus placed—an early instance of such an arrangement of the letters of a name, afterwards so frequent in Byzantine times. His portrait is easily recognised by his thin cheeks, long hooked nose, and ample beard, more adapted to the character of a Cynic than to the idea one would be inclined to form of the aspect of him that taught pleasure to be the chief good. This too illustrates the passage of the poet, who speaks of a certain personage as being

"Barbatus, macer, eminente naso,
Ut credas Epicuron oscitari."

"Him, bearded, lean, and with projecting nose,
A yawning Epicurus you 'd suppose."

One of the omens announcing the coming fall of Nero was the presentation to him by his favourite Sporus, as he was taking the auspices on New Year's Day, of a ring engraved with the Rape of Proserpine—a most unlucky subject, being the received symbol of death, and appropriated as a decoration to sarcophagi. Nothing in the eyes of a Roman could be more ill-omened than such a New Year's Gift; altogether as prophetic of future woe, as the unaccountable legend on

the marriage medal of Mary and Francis II., "Hora nona Dominus Jesus experavit Heli clamans," words so inappropriate to the occasion that they must have been suggested by Atropos herself to the designer of the medal, in bitter irony of the festive day. Chiflet asserts (but I fear only on the authority of some mediæval writer) that Augustus used a signet engraved with a tortoise and butterfly, in allusion to his favourite maxim, *Festina lente* ("No more haste than good speed"); but this conceit savours too much of the Cinque-Cento taste to be really authentic. The Sapphire of Constantius, lately mentioned, from the legend CONSTANTIVS AVG., engraved so conspicuously over the principal figure, was most likely executed by that emperor's order, as his private signet; and the Calcedony with the bust and legend of Mauricius, in the Mertens-Schaafhausen Collection, is, if genuine, a most interesting personal relic of that unfortunate prince.

Visconti ('Esposizione di Gemme Antiche,' No. 497) thus describes a portrait supposed to be that of Constantius II.:—"Impression of an intaglio in Rock Crystal, from the Florentine Museum; a youthful bust wearing the paludamentum, and appearing to offer, in his physiognomy, the features of Constantius, son and successor of Constantine the Great." But his next (No. 498) is a portrait of the highest historical interest:—"A most singular Carnelian, though of miserable execution, inscribed ALARICVS. REX. GOTHORVM. The bust is in front-face, and has upon the shoulders a kind of stole called *lorum* in those times, which formed part of the habit of ceremony of the emperors and of the consuls." It may be conjectured that this was cut for the official seal of the secretary of the Gothic king. Had it been intended for his private signet, it would doubtless have been executed on a stone of greater intrinsic value—a Sapphire or an Amethyst.

Portraits of this late epoch, when they *do* occur on gems, are generally given in front-face and very deeply cut, showing that the mechanical part of the arts, and the ability of sinking intagli with facility in the hardest stones, still survived the total extinction of all knowledge of design. Front-face portraits had ere this come into fashion upon the more important productions of the Mint, such as the medallions; and very shortly after entirely banished profiles from the obverses of the gold currency. In the De la Turbie Collection, No. 49, is a Carnelian engraved with arabesques, and a Greek inscription, KOMNHNOC TOY CEBACTOY, "Comnenus, son of the Emperor," or in modern phrase, Prince Comnenus. This is consequently an intaglio belonging to the twelfth century, during which that family held the imperial power; and is also the latest instance that has come under my notice of an engraved stone, the date of which can be approximately fixed. It supplies another argument in support of the opinion that the art of gem-engraving was re-introduced into Italy by the artists fugitive from Constantinople in 1453. Pepin used for his signet a head of the Indian Bacchus, and Charlemagne one of Serapis; but there is little doubt that, at that period of ignorant orthodoxy, the first passed muster as a portrait of Moses, the second, with better reason, as that of Christ himself.

Probably the most famous signet of later times is that of M. Angelo, preserved in the Paris Collection. It is a Sard, engraved with a group representing a Bacchic Festival, quite in the Renaissance style. In the exergue is a boy fishing, the rebus upon the name of the artist, *Gio. Maria da Pescia*. Many connoisseurs however still hold the gem to be an undoubted antique. Of this relic the following curious story is told:—In the last century, as the Abbé Barthelemy was exhibiting the rarities of the Bibliothèque to a distin-

guished antiquary of the day, he suddenly missed this ring, whereupon, without expressing his suspicions, he privately despatched a servant for an emetic, which when brought he insisted on the savant's swallowing then and there; and in a few minutes he had the satisfaction of hearing the signet tinkle in the basin held before the unlucky victim of his love of antiquities. There are more paste copies of this gem, some of them excellent imitations, than of any other intaglio in existence, not so much on account of the actual beauty of the composition (which, although fine, is by no means of the first class) as from the celebrity of the signet due to the fame of its original possessor.

An antique ring⁵ lately came under my notice, which, though its history is quite unknown, one feels tempted to believe must have been the actual signet of some empress of the fifth century. A female portrait, front-face, like that of *Galla Placidia*, deeply though rudely cut on an octagonal Amethyst, was set in a massy gold ring of a very uncommon but elegant design, representing a cable of many strands, the shank gradually swelling from the middle towards the head, which thus was flattened out sufficiently to receive the stone. The work was executed with the greatest precision, corresponding fully to the elegance of the design—an unusual circumstance in antique rings, especially those of Roman date, which are for the most part clumsy in form, the only object kept in view by the ancient goldsmith being to make them fit comfortably upon the finger without the risk of turning round upon it. And now that the subject of antique settings is once more brought before us, I must mention a splendid Greek signet of solid gold, engraved with the head of a Nymph, of the best period of Sicilian art, proving that rings

⁵ Now in the Uzielli Collection.

of this description had been in use long before the reign of Claudius, the time assigned by Pliny for their coming into fashion,⁶ which also is refuted by the remark of *Atteius Capito*, already quoted, that the older Romans cut their signets on the iron or gold of the ring itself. Both these rings were in the former splendid collection of Mr. Bööcke, to whose exquisite taste and profound knowledge of this branch of antiquity I am indebted for many of the observations incorporated in these pages. To him also belonged the Diamond in its antique ring, described above—a rarity that I had sought for in vain amongst the most famous European cabinets.



Strymphean Bird : Roman Burnt Sand

CHIMERAE.

Chimerae, also called Grylli, from the Italian word signifying both a cricket and a caprice, are grotesque figures formed of portions of various animals combined into the outline of one monster, which generally bears the shape of a bird or of a horse. Paintings of similar "*capricci*" were common among the ancients, and went by the same name that they still bear in Italy; for Pliny uses the expression "*pinxit et Gryllum ridiculi habitus,*" to designate these fantastic

⁶ Pliny's remark may perhaps only refer to the newly introduced fashion of cutting the *imperial portrait* on the gold ring itself, instead of on a gem.

the drama, on a large Sard formerly in the Webb, now in the Fould Cabinet. A very frequent arrangement is to represent a beautiful youthful profile covered with a helmet composed of three or more caricature masks, all united in one whole. A full-faced wide-mouthed tragic mask has often a comic, with mild and regular features in profile, attached to the back; and every collection furnishes new examples of the artist's ingenuity in varying these combinations. The next step was to combine the human head with that of some beast: thus an old man's head is backed by that of a wild-boar, of a ram, or of an elephant, all which combinations are of frequent occurrence.

By adding to these compositions the head and neck of a bird or of a horse, a complete animal *sui generis* was obtained, which was next supplied with legs, and often mounted by a Cupid, a parody of the popular subject, Cupid riding the lion. A favorite type was formed out of a peacock's head



Gryllus: Roman. Sard.

and neck set upon a body made out of a satyric mask, backed by a ram's head, out of which springs a cornucopia for the tail, while the monster tramples upon a dolphin or a lizard: where the general idea of the outline of the whole is that of the sacred Ibis destroying such reptiles; perhaps a sly hit at the fashionable Egyptian superstitions of the age. A mouse or rabbit is often introduced, together with a letter or two, sometimes of the Punic alphabet, probably

Pallas came to his aid and gave him a bronze rattle by means of which he scared them away to the coast of the Red Sea. *There* their descendants continue to the present day, for the officers employed on the late nautical survey of its shores discovered on the sand hills the deserted nests of a monstrous crane far exceeding in size anything known to belong to that species. Interwoven in the structure of one of them were the bones and tattered clothing of a shipwrecked sailor, still retaining his silver watch, and thus testifying to the recent construction of the pile.

Lyres composed of dolphins and tortoises, accompanied by ravens and hoopoes, all animals consecrated to Apollo, are plentiful enough, and serve to support the opinion that the other more enigmatical compositions had a well-defined intention. All these chimeræ, grylli, or symplegmata, are found much more abundantly on red Jasper than on any other stone.



ASTROLOGICAL INTAGLI.

The Signs of the Zodiac are often seen upon gems of Roman work, either singly, combined. or as adjuncts to figures of deities, the representatives of the different planets. They

each degree of the respective Signs, in its ascension, upon the future destiny of the infant born under it: for this influence was greatly modified by their various altitudes in the heavens. Manilius also gives a similar list, though less full, describing only the influences of the Signs at their rising, or when attended by the ascensions of certain constellations. Thus under Aries the native will be a great traveller; under Leo, a warrior; under Cancer, a sailor; under Aquarius, honest, chaste, and religious, &c.⁸ Pisces, strangely enough, brought to light the talkative and slanderous.

Capricorn is for the above reason a very favorite device, as are also Leo, and Virgo figured as Victory but distinguished by her helmet and the wheat-ears in her hand. Scorpio is, next to Leo, the most frequent of all, and with good reason, if we can credit Manilius as to his influence on the native's fortunes.⁹ These figures are generally accompanied by a cornucopia, to define their astrological intention. A magnificent Sardonyx intaglio (Fould) has Jupiter seated, between Mars and Mercury standing, upon an arch under which is a bearded River-god; thus giving us the nativity of Rome, for cities had their nativities like men.

Two or three sometimes occur in combination on the same intaglio, as Virgo seated between Taurus and Capricorn. This expresses the joint influence for good of these Signs; for some were accounted as hostile, others as friendly to each other. The three so united are a trine, or the three

⁸ "But when receding Capricornus shows
The star that in his tail's bright summit
glows,
Then shall the native dare the angry seas,
A hardy sailor live, and spurn inglorious
ease.
Dost thou desire a son pure, holy, chaste,
With probity and every virtue graced?
Such shall be born, nor deem the promise
vain.
When first Aquarius rises from the main."
MANILIUS, VI.

⁹ "Whoso is born beneath th' auspicious sky
When Scorpio rears his glittering tail on
high,
He shall the earth with rising cities
crown,
And trace the circuit of new founded towns.
Or ancient cities in the dust lay low
And give their sites back to the rustic
plough;
O'er ruined houses bid ripe crops to wave,
And Ceres flourish on a nation's grave."
Ibid.

respectively touched by the points of any equilateral triangle inscribed within the zodiacal circle.

When they appear as adjuncts to the figures of planetary deities, they denote the power that god or planet exerts when placed in that particular Sign; a power varying in nature and in degree according to the part of the Sign in which he happened to be at the moment of the nativity: points all laid down with the greatest exactness by the accurate Firmicus,¹⁰ in his *Decreta Saturni, Jovis, &c., e.g.* "If Mercury be found in Scorpio the native will be handsome, fond of dress, honourable, and liberal. If he be found in Leo the native will be a soldier, and gain glory and fame. If Jove be in Cancer the native will be the friend and faithful confidant of the secrets of the rich and powerful," &c., &c. Again the Signs attend the representations of other deities besides those of the planets: for, according to Manilius, each one was under the patronage of its own tutelary god or goddess, whose choice seems to have been dictated by the use or disposition of the animal or personage thereby symbolized.

" Pallas the Ram, Venus the Bull defends,
The beauteous Twins their guardian Phœbus tends.
Cyllenian Hērnes o'er the Crab presides,
Jove with Cybele the fierce Lion guides.
The Virgin with her Sheaf is Ceres' dower ;
The artful Balance owns swart Vulcan's power.
Still close to Mars the warlike Scorpion's seen ;
The Centaur huntsman claims the sylvan queen ;
Whilst Capricorn's shrunk stars old Vesta loves,
The Urn is Juno's Sign, opposed to Jove's ;
And Neptune, o'er the scaly race supreme,
Claims his own Fishes in the falling stream."

¹⁰ His voluminous treatise on Lollian, was written under Constantinus Junior in the 4th century.

These combinations also represent the Planets and their Houses,¹ for

“ The planets look most kindly on the birth
When from his proper House each views the earth,
For *there* th’ auspicious larger blessings shower,
And the malign are shorn of half their power.”

The engravings of the Signs were evidently worn in later times as amulets for the protection from disease and accident to those portions of the body under their especial influence. For each member was under a particular Sign, a belief of the highest antiquity, and scarcely yet extinct.² Hephaestion expressly observes, “the star Chnumis in the breast of Leo, protects against all diseases of the chest.” The Greek astrologer quoted by Salmasius (*De An. Clim.*), speaks of the wearing of figures of the decani, or three chief stars, in each Sign (of which Chnumis is one), cut upon rings as charms against disease and accidents. These decani are, as Scaliger observes with justice, the curious winged figures, sometimes holding a Sign in their hands, so often appearing on the Abraxas gems. Such were the “constellation stones” of the mediæval astrologer.³ Scaliger⁴ gives, as borrowed by the Arabians from the Greeks, a catalogue of most strange figures and groups, intended to express the particular in-

¹ Dorotheus and Manetho (ii. 141) lay down that

“ Chiefest of these, with aspect most benign
When in Aquarius doth old Saturn shine:
Jove in the Archer joys; th’ impetuous Mars
Of right exults in fiery Scorpio’s stars;
Soft Venus loves the Bull; the Virgin fair
Hermes regards as his peculiar care.
For to each planet that illumines the skies
His proper House some favourite Sign supplies.”

² The Arabian astrologers speak of these gems as defending the wearer against the attacks of the

animal, the figure of which they bear; thus Leo against the assaults of lions and wild beasts, Scorpio against scorpions and reptiles, &c.; but so extremely material an interpretation was certainly not accepted by the ancients.

³ “ My moondial and Napier’s bones,
And several constellation stones.”
HUDIBRAS.

⁴ Note in Manilium. Lib. V.

fluence of each degree of every Sign on the destiny of the native.⁵ Probably a careful study of these descriptions would enable the inquirer to decipher the intent of many of the inexplicable combinations engraved on the later talismanic stones.

In the combinations above mentioned Sol appears as a star with eight rays; the planets sometimes are symbolized by their attributes placed over a star: thus the caduceus figures for Mercury; the dove for Venus; the spear for Mars, &c. But the Signs even in the most hasty antique work are always given as full figures, however sketchily indicated; never as the hieroglyphics by which we are accustomed to see them denoted in almanacs. When such *do* occur on a stone it may be safely assigned to the Italians of the Revival and following century, when astrological gems and amulets were produced in even greater abundance than at any period of the ancient Empire, the belief in the science being then far stronger and more universal than in the times of pagan Rome. These hieroglyphic abbreviations probably originated with the Arabian writers, the founders of astrology in mediæval Europe, and were due to their religious prejudices against representations of the human figure, which actually led them to substitute new symbols of their own for many of the Greek constellations, as well as for some of the Signs—as Gemini, Virgo, and Aquarius.⁶

Another not uncommon device is a crescent and seven stars, the Pleiades: this may be assumed to have been a lady's signet from its occurring as a reverse on the medals of many of the empresses—as Sabina and Faustina. The

⁵ These tables are termed "Myriogeneses Signorum," a corruption of Moeriogeneses, the influence of each part or degree upon the nativity.

⁶ Gemini they rendered by two peacocks; Virgo by a bunch of wheat-ears; Aquarius by a mule carrying two buckets.

crescent enclosing the sun-star is also to be observed on gems. The motive for choosing such a device is hardly to be conjectured, unless indeed we suppose the owner thus placed herself under the patronage of all the heavenly host at once. Of the astronomical coins, the most singular is that of Niger—the celestial globe supported on the conjoined figures



Hipparchus the Astronomer: Roman. Lapis-lazuli

of Taurus and Capricorn: which may be supposed to contain an allusion to his surname *Justus*, for Erigone (Astræa) often appears thus supported. Some of the large bronze medals of Antoninus Pius from the Alexandrian mint, bear on their reverses a sign with the bust of a deity; another has the head of Serapis surrounded by those of the planets, and the whole enclosed within the zodiac. The curious Emerald of the



Alexandrine Emerald.

Mertens-Schaafhausen Collection apparently offers a similar composition, and from its style may safely be ascribed to the same period.

Iarchas, the Indian philosopher (probably the president of a Buddhist college), presented Apollonius Tyaneus with seven rings named after the planets, each of which that sage used to wear upon its appropriate day: an early allusion this to the present nomenclature of the days of the week.



Mithraic Bull, symbol of the Earth. Green Jasper.

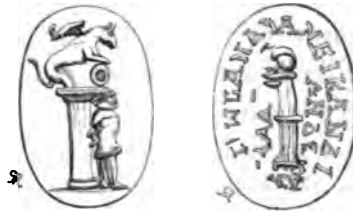
MITHRAIC INTAGLI.

In the same proportion as the preceding class of Grylli affect the red Jasper, so is the mottled green, or dull yellow variety of the same stone, the favorite material for the extensive series of intagli connected with the worship of Mithras, the oriental equivalent of Phœbus, whose place he took in the creeds of the second and third centuries. To judge from their good execution many of these intagli date from the early Empire, and thus form as it were the introduction to the innumerable host of Gnostic gems amid which the art of gem engraving expires. These works belong to the oriental doctrines so widely diffused through the Roman world during the Middle Empire, and which taught the exclusive worship of the sun as the fountain of light and life. They are easily recognized by the designs they present: a lion⁷ surrounded by stars, with a bull's head in his jaws; or Mithras himself attired as a young Persian and plunging his dagger

⁷ Leo is the "House of Sol."

into the throat of a bull, above which appear the sun and moon and some of the signs of the zodiac. In these compositions, the lion is the type of the *sun*, as the bull is of the earth; and the piercing its throat with the dagger signifies the penetration of the solar rays into the bosom of the earth, by which all nature is nourished: which last idea is expressed by the dog licking up the blood as it flows from the wound. The sign of Capricorn, so frequently introduced, represents the necessity of moisture to co-operate with the action of the sun to secure the fertilization of the soil, and the *scorpion*, an almost invariable adjunct to the bull, typifies the generative heat. Often this scene is depicted as enclosed by a host of Egyptian sacred animals, crocodiles, ibises, hawks, &c., standing around in attitudes of adoration and gazing upon the work of their supreme head, Mithras. Bas-reliefs in stone of the Mithraic sacrifice have been found in various parts of England, as at Bath and on the line of the Picts' Wall, probably the work of the Syrian troops stationed in this island. The most complete assemblage of Mithraic symbols that I have met with is to be found in an intaglio figured by Caylus, VI., pl. LXXIV. It is engraved on a very fine Agate, 2 inches long by $1\frac{1}{2}$ inch wide. In the centre is the usual type of Mithras slaughtering the bull, the tail of which terminates in three wheat-ears; beneath is the lion strangling the serpent, the emblem of darkness. On each side is a fir-tree against which are fixed torches, one pointing upwards the other downwards: at the side of one is a scorpion; of the other, a bull's head. Above each tree is again a torch, each pointing in opposite directions. On each side of the principal group is Apollo in his quadriga, and Diana in her biga. Above all stand two winged figures entwined with serpents and resting upon long sceptres, between whom are three flames, as well as four at the side of the figure to the right,

making up the number *seven* : an allusion to the seven planets. A naked female surrounded by ten stars is on her knees before the figure on the left : this may typify the human soul praying for purification. There is no doubt but that this composition, if it could be interpreted, would be found to contain a complete summary of the Mithraic creed.*



Mithraic Talleman of Nicandar. Green Jasper

SERAPIS.

To the same period belong the intagli presenting heads of *Serapis* with the legend ΕΙC ΘΕΟC CΑΡΑΠΙC, "there is but one God, and he is Serapis;" ΕΙC ζΩΝ ΘΕΟC "the one living God;" ΝΙΚΑΟ CΑΡΑΠΙC ΤΟΝ ΦΘΟΝΟΝ, "baffle envy, Serapis," &c. A beautiful Sard of Roman-Egyptian work in my collection represents Serapis seated on a throne with the triple-headed animal, described by Macrobius (B. vii.), at his side; before him stands Isis, holding the sistrum and the wheat ears; around the group is the legend, Η ΚΥΡΙΑ ΙCΙC ΑΡΝΗ, "immaculate is our Lady Isis;" the very terms applied in our day to the same

* The torches raised and lowered signify the East and West; the serpent winding four times around the youth the annual course of the sun, as is clearly proved by a torso of Mithras found at Arles, in which the zodiacal figures are placed between the folds of the serpent. The tail terminating in wheat-ears alludes to the fifty life-giving plants which sprung from the tail of the

Primeval Bull when destroyed by Ahriman. The scorpion between his hind legs typifies autumn, as the serpent lying beneath does the winter. The raven represents the attendant priest, for in these rites the superior officials were styled Lions, the inferior Ravens; hence the rites themselves are often designated *Leontica* and *Coracica*.—Vide SEEL'S *Mithra*.

deity, whose worship has in reality ever subsisted, though under another name. All these invocations are characteristic of the age when the liberal western mythology, which pictured Heaven as a well-ordered monarchy peopled by innumerable deities, each having his proper and independent position, was beginning to give place to the gloomy superstitions of Oriental origin, according to which the tutelary divinity of some particular nation was the sole god of heaven and earth, whilst those of other races were either vain fictions, or else evil spirits. Many gems, fine both in material and workmanship, give us the ancient Egyptian divinities exactly as represented on the oldest monuments, but engraved in a pure Roman style. Most of these belong to the time of Hadrian, who attempted to revive the outward forms of the old religion, the spirit of which had well nigh passed away; an attempt which has generally preceded the downfall of every extinguished creed.

Macrobius, I. 20, says, "The city of Alexandria pays an almost frantic worship to Serapis and Isis; yet all this veneration they prove that they offer to the Sun under that name, both by their placing the corn basket upon his head, and accompanying his statue by the figure of a three-headed animal, the central and largest head of which is that of a lion. The head that rises on the right is one of a dog in a mild and fawning attitude, while the left part of the neck terminates in the head of a ravening wolf. All these animal forms are connected together by the wreathed body of a serpent, which raises his head up towards the right hand of the god, on which side this monster is placed. The lion's head typifies the Present, because its condition between the Past and the Future is strong and fervent. The Past is signified by the wolf's head, because the memory of all things past is snatched away from us, and utterly consumed. The

symbol of the fawning dog represents the Future, the domain of uncertain but flattering hope. But whom should Past, Present, and Future serve except their author? His head, crowned with the calathus, typifies the height of the planet above us, and his all-powerful capaciousness; since to him all things earthly return, being drawn up by the heat which he emits."

"Again when Nicocreon, king of Cyprus, consulted Serapis as to which of the gods he ought to be held, he responded,—

‘A god I am, such as I show to thee :
The starry heaven my head, my trunk the sea ;
Earth forms my feet, the air my ears supplies,
The sun’s far-darting brilliant rays my eyes.’

"Hence, it is apparent that the nature of Serapis and of the Sun is one and indivisible. Isis, so universally worshipped, is either the earth or Nature as subjected to the sun. Hence, the body of the goddess is covered with continuous rows of udders, to show that the universe is maintained by the perpetual nourishment of the earth or Nature."



Amasis surrounded by the seven vowels.
Green Jasper.



Abraxas. Green Jasper.

GNOSTIC GEMS.

But the true development of the Egyptian doctrines in a new phase is very conspicuous in the extensive class of Gnostic intagli, which, with the exception of a few rude engravings of victories, eagles, &c., are the sole glyptic

monuments we possess of the last centuries of Roman domination in the West. As may be supposed, the art displayed in these intagli is at its lowest ebb; and the work appears to have been executed by means of a very coarse *wheel*, like that on the Sassanian stamps of Persia, a country the source of a large proportion of the ideas expressed in their figures and legends. Instead of the choice Sardis, Amethysts, and Nicoli of an earlier period, we find *these* amulets almost without exception cut upon inferior stones, most commonly on bad Jaspers, black, green, and yellow; on dull Plasmas, or perhaps Jade, and sometimes on Loadstone, but rarely on Sardis or Calcedony. These Gnostic types, when found of good work, and engraved on fine stones, as is sometimes the case, will on examination turn out to be works of the Cinque-Cento period, when similar subjects, and all figures bearing any relation to astrology, were again executed in large numbers, in compliance with the ruling superstition of the day. A fine Amethyst once in my possession, engraved with a figure of the hawk-headed, Priapean, Thoth, standing on a serpent, and holding in his extended right hand a small figure of Anubis, was a remarkable instance of this revival of ancient ideas; for the work was worthy of the best times of the art, and in itself a convincing proof that the intaglio could not have belonged to the Gnostic era. Pastes of this class do not exist: the real stones were cut so rudely, and doubtless produced so cheaply, that it was not worth while to imitate them in a less valuable material. The sole exception that has come under my notice, to the inferior quality of the gems used for these amulets, is an extraordinary garnet tablet, described further on.

Without entering into the intricate maze of these doctrines, except occasionally, and just as far as is necessary to explain the representations involving some of their ideas, I shall

proceed to classify them in the order of their antiquity. The earliest are doubtless those which offer purely Egyptian types; a very frequent one being a serpent, erect, and with a lion's head surrounded by seven rays, and usually accompanied by the inscription ΧΝΟΥΜΙC or ΧΝΟΥΜΙC. This is Chneph, the good genius of the Egyptian religion, the type of



Chneph: Alexandrian. Sard.

life and of the sun. Sometimes we find this idea more fully developed in the form of a lion-headed man, bearing a wand entwined with a serpent, the head of which is directed towards his face. A common inscription around the figure, or on the back of the stone, is the Hebrew-Greek, CEMEC EIAAM, "the eternal sun;" alluding to the appearance of Christ "the sun of righteousness," regarded as the equivalent of the genius of light; to whom also refers the legend ΑΝΑΘΑΝΑΒΑΑ, "thou art our Father," a corruption of the Hebrew "Ianu atha ab." To the Egyptian family also belongs the Harpocrates, seated upon the lotus flower (having the life-giving symbol purposely exaggerated) and often accompanied by Anubis, serving as a type of the necessary regeneration of the believer.* The same deity often is repre-

* The regeneration of the soul is sometimes typified in a very singular and literal manner, by a group of the Sun-Lion impregnating a naked female, the usual *Eastern* symbol of the disembodied spirit.

sented sailing through the air in the mystic boat, steered by two hawks, with the sun and moon above his head. The backs of these intagli are often filled up by the seven vowels of the Greek alphabet, arranged in as many lines, each vowel being repeated until it fills its respective line ; illustrative of the curious tenet, that each vowel represented the sound uttered in its course by one particular planet, which, when all combined, formed a hymn to the glory of the great Creator of the Universe. An outline of a human figure entirely filled up with these vowels and other legends, is the type of the regenerated and spiritual man, entirely freed from all earthly taint.¹⁰ Again, we have a combination of different deities in the figures with many wings and arms, and uniting the attributes of Athor and Sate, the Egyptian Venus and Juno. But the most frequent type of this class is the Anubis, or jackal-headed god, sometimes represented in his ancient form, and as bearing the caduceus of Hermes, to denote his office of conducting the souls of the dead through the shades unto their final resting-place in the Pleroma ;¹ and sometimes appearing as a being with both a human and a jackal's head, to express his identity with Christ as the guardian of the spirit when released from the body. This idea explains the meaning of a rude drawing on the wall of a vault in the Palatine, where this jackal-headed figure is represented

¹⁰ Scaliger takes him to be the representative of the 365 Aeons, all their names being supposed to be compressed within the outline.

¹ In gems of a better period Hermes is not unfrequently seen with his caduceus, bending over and assisting the soul to emerge from the earth, or Hades. A strange coincidence in form, at least (if not in origin), with the common mediæval

representation of Christ raising souls out of Purgatory. The Hell of the Persians, the burning lake of molten metal, into which at the Day of Judgment Ahriman and his followers were to be cast, had for its object the ultimate purification of the condemned ; a doctrine recognised by some of the Christian Fathers, and even by St. Jerome.

crucified, with the inscription ΑΛΕΞΑΜΕΝΟC CEBETE ΤΟΝ ΘΕΟΝ, "Alexamenos adores the god;" the work of some pious Gnostic in reality, but which is usually interpreted as a heathen blasphemy, from the jackal's head being mistaken for that of an ass. A Sard in my collection presents to the first view the primitive and orthodox representation of the Good Shepherd bearing the lamb upon his shoulders, his loins girt with a belt with long and flowing ends; but on a closer view the figure resolves itself into the double-headed Anubis, the head of the lamb doing duty for the jackal's, springing from the same shoulders as that of the man, whilst the floating end of the girdle becomes the thick and curled tail of the same animal. I have also met with another type of difficult explanation: a woman seated upon a huge crested serpent; evidently not the usual Chneph, as it does not bear the lion's head—the invariable adjunct to that symbol. Stones also occur entirely covered on both sides with long legends in the Coptic language but Greek character, the most curious of which was the famous Garnet of the Herz Collection, an oblong slab, $2\frac{3}{4}$ inches high by $1\frac{1}{4}$ wide, with 11 lines on one side, and 14 on the other, of a long invocation² in the Greek character, but in a different language, in which many Hebrew (or Chaldee) words were interspersed, together with the names of angels.³ A very singular type is

² It is a most singular coincidence that the inscriptions on each side of this tablet (excepting a few words enclosed within a coiled serpent at the top of the other) exactly correspond with those on the oval Calcedony given by Chiffet, xvii. 69, and of which his friend Wendelin had sent him a very orthodox version, which, however, did not by any means, and with good reason,

satisfy the learned and sagacious canon.

³ Iamblichus (Letter to Porphyry) expressly says that the gods are pleased with invocations in Assyrian and Egyptian, as being ancient and cognate languages to their own, and those in which prayers were first made to them, and that they have stamped as sacerdotal the entire language of these holy nations.

the figure of Osiris wearing a radiated crown, and with the body swathed like a mummy, standing upon the heads of four angels, upon whom two streams of water flow out of his sides.⁴ An armed man, the *Soldier* of the Mithraic rites, often occurs, sometimes holding a spear terminating in a cock's head, and sometimes grasping two serpents.

The long and unintelligible legends so characteristic of these intagli, are often found cut on the backs of gems of an earlier date, but the subjects of which were analogous to the religious ideas of the times, such as figures of the Sphinx, the Lion, Medusa's head, or Sol in his car. The letters of these inscriptions are usually of a square form, the rudeness of the instrument employed, or the want of skill in the artist, having prevented his forming circular characters; to do which neatly requires the greatest dexterity and practice, and is the most difficult task that can be required from the wheel; for the elegant and minute inscriptions of the earlier engravers will be found to have been scratched into the stone with the diamond point, and hence their perfect neatness of execution.

We now come to the figure which has given its name to this entire class—the god Abraxas, or as the name reads on the gems, Abrasax. The letters of this word, when employed as Greek numerals, make up the number 365, the successive emanations of the Great Creative Principle, which embraces all within itself, and hence is styled the Pleroma; an idea fitly typified by a word expressive of the collective number of its components. The numerical value of the letters in *Abrasax* is also equivalent to those in *Meithras*, the representative of Christ; hence the figure of this god is a combination of various attributes, expressive of the union of many

⁴ On Assyrian gems Athor appears with arms extended pouring out the waters of life upon the subject figures. The Persian female Ized Arduisher is the "giver of the Living Water."

of all. Most of these gems appear to have been designed merely for amulets, and not for ring-stones, for which they are unfit, on account of their large dimensions ; I have never met with more than one in an ancient setting of any sort, but Matter figures one antique gold ring, engraved with the type of *Abraxas*. They were no doubt intended to be carried about the person,⁶ perhaps as credentials between the initiated—a custom to which St. John alludes in the passage,—“To him will I give a white⁷ stone, and in the stone a new name written, which no man knoweth, save he to whom it is given.”

GNOSTIC AMULETS.

That these amulets were intended for suspension around the neck, is indicated by the generic name of such charms, viz., *Periapta* ; and, in fact, the only Gnostic stone I have ever seen retaining its antique setting, is one adapted for this purpose. It is a red Jasper, of an oval form, engraved on one side, with a mummy with radiated head, the type of the glorified soul ; with the legend ABPACAZ : on the reverse is the usual figure of *IAΩ*, with his name below. The stone, not quite an inch in length, is set in a rude frame of gold, with a broad loop soldered on the top edge for suspension, exactly as in the huge medallions of the same date. This unique example exists among the miscellaneous gems of the British Museum, amongst which I recognised all the finest of the Gnostic intagli, figured so long ago by Chiflet ; proving the truth of the assertion, that all the curiosities of the world ultimately gravitate towards London, as their centre-point of

⁶ Thus the talisman of the Princess Badoura, “a Carnelian engraved with strange figures and letters,” was carried by her in a small purse sewed

on to her jewelled girdle.

⁷ Probably the Calcedony, on which the figures of the Egyptian Agatho dæmon usually occur.

attraction. In this number particular attention is due to an oval Carnelian, covered on both sides with that inscription, already noticed as occurring on the Garnet tablet of the Herz Collection, and on the Calcedony figured by Chiflet; thus proving the formula to have been a favourite one amongst these religionists, and not improbably a kind of confession of faith. A very singular relic of the latest period of this heresy is a large egg-shaped Calcedony, engraved with the lion-headed deity, surrounded by two lines of a Cufic legend; the whole rude in the extreme, and in the manner of the latest Sassanian seals. These gems, as well as plates of lead and bronze similarly engraved, and even medals and tessaræ of terra-cotta, were placed together with the corpses in the tomb as a safeguard against demons. Many were found in the sepulchre of Maria, although the wife of a most orthodox emperor, Honorius; and in the ancient cemeteries of southern Gaul they are discovered in great abundance. The number of them in use at the close of the Empire must have been very great, so numerous are they in Italy and in France, which latter country was the seat of a very extensive branch of these sectarians, the Priscillianists. It is probable that these doctrines lurked unnoticed amongst the original inhabitants of Gaul, under the reigns of the Arian Gothic princes, and revived in full vigour during the twelfth and thirteenth centuries in the Manicheism of the Albigenses, whom the mere fact of their having been so cruelly persecuted by the Catholics does not prove to have been necessarily such good Protestants as they are usually accounted in our day.

A curiously-shaped globular vase, often seen on these gems, is explained by *Matter* as the receptacle of the sins committed during life, for it appears in company with Anubis weighing two figures in a balance; but I am inclined to take it for the vessel shaped "like an udder," used for pouring

libations of milk at the rites of Isis. A column, terminating in a triangle, and covered with letters, with Anubis or some other deity standing before it in the act of adoration, is of frequent occurrence; as is also a group, composed of a sword, bow, cup, and butterfly. It is curious to observe how the Freemasons have retained many of these emblems in their symbolical pictures; where we see the erect serpent, the sword, the bowl, the inscribed column, and the name of St. John, whom these ancient sects claimed as their especial apostle, presided over by the symbols of the Sun, Moon, and Planets, and arranged in a manner strongly reminding one of the ancient representations of the Gnostic doctrines. Again, *Michael* actually appears (in a basalt intaglio) in the form of a hawk-headed and winged youth, holding in each hand a mason's level, while the oft-repeated figure of Harpocrates, with his finger on his lips, significantly betokens the inviolable secrecy required from the initiated. A distinguished official of the craft, when looking over the plates of Gnostic gems in the Apistopistus of Macarius, confessed to me his astonishment at recognizing there many of the mystic symbols of his brotherhood. It must also be remembered that the Freemasons claim descent from the Templars, an order suppressed in the fourteenth century on the charge of Manicheism, and on grounds similar to those that led to the extirpation of the Albigenses—accusations in which there was probably some truth, although only taken up as an excuse for confiscating the property of the Order, which had excited the cupidity of the needy sovereigns of Europe.⁸ Some traces

⁸ *Gnosticism of the Templars*.—Von Hammer (Mines de l'Orient, VI.) has attempted to substantiate, by the evidence of existing remains, all the charges brought against the Templars as the excuse for the sup-

pression of the Order, in his Chapter entitled "The mystery of Baphomet revealed, or the Templars convicted by their own monuments of sharing in the apostasy, idolatry, and impurity of the Gnostics, and even of

of Gnosticism probably still survive among the mysterious sects inhabiting the valleys of Libanus. As late as the time of Justinian, Procopius states that more than a million of Edissæans, Manichæans and Samaritans (a Gnostic sect), were destroyed in Syria by the persecutions carried on by this bigoted emperor: and as that region soon afterwards fell into the hands of the more tolerant Mahometans, who never interfered with the religion of their tributaries, there is a probability of these doctrines having been handed down to the present day, especially when we consider the extraordinary vitality of every well-defined system of religious opinions.



Manichæism. Red Jasper.

CHRISTIAN INTAGLI.

It is a most singular circumstance that, amidst this multitude of heretical designs, intagli representing purely Christian subjects are of the rarest possible occurrence, that is, in works

the Ophites." Here he makes out that by "Baphomet" is meant the *Βαφή Μήτιδος*, or baptism of the Spirit; and he discovers an endless variety of Gnostic emblems in the jettons dug up occasionally in the ruins of their preceptories, and in the sculptures ornamenting the churches of the Order. But these mysterious jettons are in fact merely

bracteate coins of certain Suabian Westphalian bishops, and of the markgraves of Brandenburg; and the "Baphomet," whom, as it is set forth in the indictment, "they adored in the shape of a man's head, with a long beard," is only the name Mahomet, corrupted in the mouth of the ignorant French witness for the prosecution.

of indubitable antiquity; for of modern times they are, as might be expected, by no means uncommon. I have, however, met with one of good work, apparently of the third century, a red Jasper, engraved with the martyrdom of a female kneeling before a naked executioner armed with a singularly shaped sword, evidently made for the purpose of a headsman's instrument. Before the saint is a dove with a palm in its beak, above is the monogram of Christ, in the exergue the letters ANFT, which may perhaps fix the scene of the event at Antioch. A Nicolo, engraved with the Heavenly Father seated on his throne, and surrounded by the twelve patriarchs, might belong to any sect of the late period to which its style induced me to refer it. In the Herz Collection was a Carnelian intaglio of the Good Shepherd standing between two tigers looking up at him, inscribed ESIVKEV, in which the name of Jesus appears to be intended, together with some other appellation or title. The collection of the British Museum contains, however, some highly curious and undoubted Christian subjects engraved on gems.

The most interesting of these is a red Jasper set in an elegant antique gold ring, the shank formed of a corded pattern, in wire, of a novel and tasteful design. The stone bears in neatly formed letters,—IHCOYC ΘEOΥΥΙΟC ΤΗΡΕ, "Christ, Son of God, keep us." Another of equal interest and of the earliest period of our religion, a fish cut on a fine Emerald (quarter of an inch square), is set in an exquisitely moulded six-sided ring with fluted and knotted shank, imitating a bent reed, very similar to a bronze one figured in Caylus. A beautiful and large Sapphire of very spherical form, is engraved with the monogram of Christ, the straight line of the P being converted into a cross by a line passing through it. Another example this, to be added to the list of genuine antique works upon this stone.

A Sard of the same Collection bears a singular device, a cross planted upon a fish, with two doves perched at the extremities of the arms, and the name IHCOYC repeated above and below them. Lastly, the Good Shepherd in a landscape, did not appear to me of such indubitable authenticity as the rest, for the work was entirely wheel-cut on Sard, in the style of the Gnostic school; so easily imitated by the modern gem engravers.

IAΩ. ABPAΞΑΣ.

We have seen the statement of Origen, which too is adopted by *Matter*, 'Histoire Critique du Gnosticisme,' that Iao, Adonai, &c., were the names of the genii of the moon, sun, and planets, beings inferior and even antagonistic to Abraxas the representative of the Supreme Creator himself. But, resting on the actual authority of the inscribed amulets, I am inclined entirely to reject this theory, and to assert that this doctrine, if ever held, must have been that of a small sect of Jewish or Magian origin, and certainly not that of the numerous body who engraved and wore the gems that have come down to us in such abundance. The inscriptions upon these prove beyond a doubt that Abraxas, Adonai, Sabao, are merely titles or synonyms of Iao, the deity symbolically represented by the engraving. Thus we find the prayer, "Iao, Abraxas, Adonai, Holy Name, Holy Powers, defend Vibia Paulina from every evil spirit;" and the same names constantly occur united together, and followed by the epithets ABAΘANABAA, "Thou art our Father,"—CEMECEIAAM, "The Eternal Sun;" a mode of invocation which would certainly not have been applied to beings of a discordant, much less of an antagonistic, character to each other. Besides, if Abraxas were the opponent and future victor of Iao, it would have been absurd to place their names together (that of Iao often

the first), each evidently invoked in the accompanying prayer, and honoured by the same titles of adoration. Again, the composite figure which represents, as all writers agree, Abraxas himself, is much more frequently accompanied by the inscription Iao than by the word Abraxas, and nevertheless is followed by the same addresses of "Thou art our Father," "Eternal Sun," as when both names occur united. It would also be quite as contrary to the usual course of proceeding in representations of sacred subjects, to make the picture of a deity and inscribe over it the name of his adversary, as it would be to paint a crucifix with the name of Satan occupying the place of an explanatory legend. And it will be shown presently that the numerical value of the name Abraxas has a distinct reference to the nature of the god worshipped, from the earliest period, under the title of *Iao*. If we examine the figure of Abraxas, we shall find it to be made up of portions of animals considered, in the ancient religion, as attributes of the sun. Thus he has the head of a cock and serpent legs, emblems of the sun in the Egyptian mythology, and he bears in his hand a whip, the symbol of the god of day. That the name Abraxas had reference to the sun appears from Jerome on Amos, III., "As Basilides, who called Almighty God by the portentous name of Abraxas, and says that the same word, according to the Greek numerals, and the sum of his annual revolutions, are contained in the circle of the sun; whom the heathen, taking the same sum, but expressed in different numerical letters, call Mithras; and whom the simple Iberians worship under the names Balsamus (Lord-Sun), and Barbelus (Son of the Lord)." Augustine explains these numbers thus: "Basilides pretended the number of heavens to be 365, the number of the days in the year. Hence he used to glorify a 'Sacred Name' as it were, namely the word Abraxas, the letters in

which name, according to the Greek mode of computation, make up that number." These passages establish the identity of Abraxas with Mithras, which latter name we also meet with upon Gemætic intagli. For the same reason Apollo in his ear intagli of a better time of art, occur frequently inscribed with *Iao* and Abraxas in characters of a later date; proving that the ancient type was viewed as indicative of the same idea as the newly-coined *Sacred Name* of Basilides. His religious system is thus briefly and clearly given by Tertullian, *Prescript.* :— "Afterwards Basilides the heretic broke loose. He asserted that there was a supreme God, by name Abraxas, by whom *Mundi* was created, whom the Greeks call *Nous*. From this emanated the Word, thence Providence; from Providence, Virtue and Wisdom: from these afterwards Viruses, Principities, and Powers were made; then infinite generations and emissions of Angels; by these Angels 365 heavens were established. Amongst the lowest Angels indeed, and those who made this world, he sets last of all the God of the Jews, whom he denies to be God, but affirms that he is an Angel."

Having thus proved the identity of Abraxas with Mithras, or rather the fact of the word's being only a numerical epithet applied to the Sun-god, let us examine the exact sense of the name *Iao*, and we shall find this too to be but a synonym of Mithras. Macrobius (R. 1.) says that Apollo of Claros, being consulted as to which of the gods that deity was to be regarded who was called *Iao*, delivered the following oracle:—

"The Jovian rises ye've learnt to none disclose,
Falsehood, small wit, weak understanding, shows.
Nogard *Iao* as supreme above,
Pluto in Winter, at Spring's opening Jove;
Phœbus through blazing Summer rules the day,
While Autumn owns the mild *Iao*'s sway."

Here we find *Iao* explained to mean one of the names of the Supreme Deity, whose physical representative is the Sun. Again, we have Dionysius (Bacchus) added to this list in the following oracle of Orpheus:—

“Jove, Pluto, Phœbus, Bacchus, all are one.”

Thus we see that *Iao* is an epithet of the *Sun*, who, in the philosophical explanation of the old religion, is regarded as synonymous with Bacchus. Hence originated the prevalent belief of antiquity that the Jehovah of the Jews, a name rendered in Greek by *IAΩ*, was the Egyptian Bacchus—a notion supported in their minds by the golden vines which formed the sole visible decoration of the Temple, and in the Jewish custom of celebrating the Feast of Tabernacles in huts made of boughs, and attended with many of the ceremonies used at the Greek Dionysia. This opinion as to the real origin of the Jewish worship is mentioned by Tacitus as prevalent in his time, although he does not agree with it, but solely on the ground that the gloomy and morose character of the Hebrew religion proved but badly its relationship to the rites of the merry god of wine.

Serapis, the representative of Universal Nature (according to his response to Nicocreon), may also have been signified by the names *Iao* and *Abrahas*, and thus have been taken as a type of Christ as the Creator of the worlds, which would serve to explain the strange assertion of Hadrian, that all the Christians of Alexandria were worshippers of Serapis, and that Christ and Serapis were one and the same god; for Alexandria was the very hotbed of Gnosticism, and the largest and earliest portion of the gems we are now considering, by their style of execution and the symbols upon them, clearly show their Egyptian origin. A most singular amulet of this date, in the Herz Collection, was a heart-shaped piece of basalt, engraved on the one side with seated figures of Ammon and

Ra (Jupiter and the Sun), between them the mystic Asp, and on the reverse this legend:—

“ εὐς Βαττ εὐς Ἀχὼρ πατὴρ τῶν βίᾳ εὐς δε Ἀχὼρ,
χαῖρε πατέρ κοσμοῦ χαῖρε τριμορφε Θεός.”⁹

— Achor and Bait, one power, with Achor one,
Hail Father of the world, hail triple God.”

This amulet was probably made about the time of Hadrian, both the execution of the figures and of the letters being neat and careful, and such as characterised that epoch.



Figure Deity with Achor legend. Green Jasper

A large ivory ring, found at Arles, bears the monogram of Christ between A and Ω, as it appears on the coins of the Gallic princes of the fourth century, Magnentius and Decentius, but accompanied by the title ABPACAZ, a sufficient proof of the identity of the two personages in the estimation of its owner. *Μετάρω* (Abraxas) was easily admitted as the type of Christ, the Creator and Maintainer of the Universe, from the circumstance that in the Persian religion, to which the Jews owed all the spiritual portion of their creed,¹⁰ he was declared to be the first emanation of Ormuzd the Good Principle, and his representative to the world.¹ The Mithraic

⁹ The unity of three deities, or rather the expression of the same deity in three persons, was a very favourite Egyptian type.

¹⁰ Such as the belief in a Future State of rewards and punishments, the Immortality of the Soul, the Final Judgment, the existence of

Angels and Evil Spirits, &c.

¹ “Who being the brightness (or rather a reflection) of his glory, and the express image of his person, and upholding all things by the word of his power”—“Being made so much better than the Angels,” &c.—*Hebrews*, i.

rites bore a great resemblance to many subsequently introduced among the Christians, as well as to the initiatory ceremonies of the Freemasons of the present day. The believers were admitted by the rite of baptism; they had a species of Eucharist; and the courage and endurance of the neophyte were tested by twelve successive trials called *tortures*, undergone within a cave constructed for the purpose, before he was admitted to a full knowledge of their mysteries. These initiatory rites are thus alluded to by Justin Martyr (Apol. II.): "The Apostles, in the commentaries written by themselves, which we call Gospels, have delivered down to us that Jesus thus commanded them: 'He having taken bread after that he had given thanks, said, Do this in commemoration of me; this is my body. And having taken a cup and returned thanks, he said, This is my blood; and delivered it to them alone.' Which thing indeed the evil spirits have taught to be done out of imitation, in the mysteries and initiatory rites



Mithraic Symbols. The Two Principles. Altar with the Sacred Wafers, Lustral Water, Raven, &c. Pluma.

of Mithras. For *there* a cup of water and bread² are set forth, with the addition of certain words, in the sacrifice or act of worship of the person about to be initiated: a thing which ye either know by personal experience or may learn by enquiry."

² In this round cake, termed of the designation Missa, applied to Mizd, we have the prototype of the the Bloodless Sacrifice. Host, and the much-disputed origin

Again, on this point Tertullian (Praescript.) says, "The devil, whose business it is to pervert the truth, mimics the exact circumstances of the Divine sacraments in the mysteries of idols. He himself baptizes some, that is to say his believers and followers; he promises forgiveness of sins from the sacred fount, and thus initiates them into the religion of Mithras; he there marks on the forehead his own soldiers; he also celebrates the oblation of bread, he brings in the symbol of the Resurrection, and wins the crown with the sword." This last phrase he thus explains:—"Blush, ye Roman fellow-soldiers, even if ye are not to be judged by Christ, but by any soldier of Mithras; who, when he is being initiated in the cave, the very camp of the powers of darkness, when the wreath is offered to him (a sword being placed between, as if in mimicry of martyrdom), and then about to be set upon his head, he is warned to put out his hand and push the wreath away, and transfer it to, perchance, his shoulder, saying at the same time, 'My only crown is Mithras.' And thenceforth he never wears a *wreath*;³ and this is a mark he has for a test, whenever tried as to his initiation, for he is immediately proved to be a soldier of Mithras, if he throws down the wreath and says that 'his crown is in his god.' Let us therefore acknowledge the craft of the devil, who mimics certain things of those that are divine, in order that he may confound and judge us by the faith of his own followers." But a dispassionate examiner will remark that these two zealous fathers somewhat beg the question, in asserting that the Mithraic rites were invented in mimicry of the Christian sacraments, having been in reality in existence long before the promulgation of the Christian religion. On the contrary, there is very good reason to believe that the simple commemorative rites established by

³ The universal custom of the the being without one would of itself
 ancients at all festivities: so that be a most remarkable singularity.

Christ himself were invested with the mystic and supernatural attributes afterwards insisted upon as articles of faith, by the unscrupulous missionaries, in order to outbid the attractions of ancient ceremonies of a similar nature, and to offer to the convert, by the performance as it were of certain magical formulæ, all those spiritual advantages of which the rites themselves were merely the symbols.

The worship of Mithras subsisted at Rome for a long period under the Christian emperors. Jerome, writing to Laeta, says: "A few years ago your kinsman Gracchus, a name the very echo of patrician nobility, when he held the office of Prefect of the City, did he not upset, break, and burn the Cave of Mithras, and all those monstrous images that served in the initiatory rites, the figures of Corax, Niphus, the Soldier, the Lion, the Persian, Helios, and Father Bromius?"

In the representations here enumerated we recognise symbols of constant recurrence upon the gems under consideration: Corax the raven; Niphus, probably Chneph, the lion-headed serpent; the armed man; the lion; the youth in the Persian dress; the sun, typified by the star; Bromius or Bacchus, by the large bowl. Many of these also contribute portions of themselves to make up the composite deity called Abraxas, who unites in himself Corax, Niphus, Miles, and Helios. The gem given by Chiflet, pl. xv., 62, appears to me to present a picture of the rites of initiation into the Mithraic religion, and in it all the above-named figures and symbols are introduced. Two serpents erect form a sort of frame for the composition, at the top of which we see the busts of Sol and Luna face to face, between them is a hawk with expanded wings, at the back of each is a raven. In the field are two crowned and naked men on horseback trampling upon two dead bodies: between these

is a kneeling figure in the attitude of supplication, over his head are two stars. Behind each horseman stand two soldiers; at the bottom is a table supporting a loaf of bread, a roe (an attribute of Bacchus), a cup, a sword, combined with some indistinct emblems, possibly the wreath mentioned by Tertullian. On the back of the stone is engraved a more simple composition representing two crested serpents, twined round staves and looking into a cup; two stars above a table resting on a crater, and two bows ending in serpents' heads on each side. Here I fancy we may discover the picture of some of the trials of courage (the twelve degrees of torture of Suidas), to which the neophyte was subjected, exactly as the "apprentice" on his admission to the Masonic Lodge of the present day,⁴ and surrounded by all the host of Mithras so remorselessly destroyed by the zealous Gracchus. One test of the courage of the neophyte was the apparent approach of death, for Lampridius mentions, among the mad freaks of Commodus, that "during the Mithraic ceremonies, when something was to be done for the sake of inspiring terror, he polluted the rites by a real murder:" an expression which clearly proves that a show or scenic representation of such an act entered into the proceedings; a circumstance probably denoted by the two corpses beneath the horsemen. The raven properly takes its place among the symbols of Mithras as being an attribute of Apollo in the early mythology, for which reason it is often engraved seated on a lyre.

Niphus, or Chneph, spelt upon the gems XNOYBIC, XNOYΘIC, and XNOYMIC, the lion-headed serpent of such frequent

⁴ During this probation, which lasted forty days, the neophyte was tested by the four elements; he was obliged to lie naked on the snow a certain number of nights, and was scourged for the space of two days. These twelve tests are represented on the sides of the well-known bas-relief preserved in the museum at Innspruck.

occurrence is said by Hephaestion to be one of the Decani or three chief stars in Cancer. This name comes from the Egyptian XNOVB, gold. XAPXNOVMIC, the first Decanus in Leo, also occurs figured with a human head surrounded by rays and with a serpent's tail: his name is written XOAXNOVBIC on the gema. A Greek⁵ astrologer says of these Decani, "there are in each sign three Decani⁶ appointed, of various forms; one holding an axe, the others represented differently: these figures engraved in rings are charms against accidents as Teucer says, as do other great astrologers of his times." This passage explains the meaning of a curious Carnelian in the Mertens-Schaafhausen Collection, engraved



Hermes Heptachryses. Roman Sard.

in a late Roman style, with the figure of Mercury seated on a throne, bearing the attributes of Jupiter, the thunderbolt and laurel-crown, and with a ram at his side. Around him is the legend ΕΠΙΤΑΧΡΥCOC, which has a strong analogy to the XAPXNOVMIC above mentioned as the name of a Decanus in Leo. From the statement as to the talismanic power of the three Decani in each sign, and the custom of wearing their figures engraved in rings, there can be little doubt but that we have in this intaglio a potent Decanus of Leo or Aries, for the animal at his side may do for either, and in

⁵ Quoted by Salmasius, De Annis spector," a term exactly rendered by Horoscopus, the star that looks

⁶ From Dekan, Chaldee "In- upon the hour of one's nativity.

his mis-spelt Greek title a translation of his Egyptian name—an epithet compounded with the word “gold,” for it may be rendered “sevenfold golden.”

A curious passage indicative of the general belief of the protective virtue of this figure of Chneph, is to be found in Galen De Simp., Med. Facult., B. ix. “Some indeed assert that a virtue of this kind is inherent in certain stones, such as is in reality possessed by the green Jasper, which benefits the chest and mouth of the stomach if tied upon it. Some set it in a ring and engrave upon it a serpent with radiated head, just as King Nechepsos prescribes in his thirteenth book. Of this stone I have had ample experience, having made a necklace out of such gems and hung it round the neck, descending so low that the stones might touch the mouth of the stomach, and they appeared to be of no less service than if they had been engraved in the way laid down by King Nechepsos.”

Chneph is given as the name of the Good Genius by Eusebius, i., 7, where he says, “the serpent unless injured by violence never dies naturally, whence the Phenicians named it the Good Genius; similarly the Egyptians have called him *Chneph* and given him a hawk’s head on account of the especial velocity of that bird. The priest at Epeæ, styled the head interpreter of sacred things and scribe, has thus explained the meaning of the allegory. “The most divine nature of all was one serpent bearing the form of a hawk, and also being most delightful in aspect: for when he opened his eyes he filled all the places of his native region with light, but when he closed them darkness immediately ensued.” Our serpent of the gems, however, does not appear with a hawk’s head, but always with a lion’s; for which reason one would be inclined to apply this description of Eusebius’ to the Abraxas figure, who sometimes appears with



the head of a hawk, or of a lion, instead of that of a cock, the most common mode of representing him.

I have already described the Mithraic gems as being earlier in date, and unconnected with the doctrines of the Basilidans. I have no doubt as to the correctness of this assertion, and that no difficulty will be found on inspection in distinguishing the two classes of intagli, the former being marked by the superiority of style as well as by the absence of Egyptian symbols, and of the long Coptic legends. Many of these intagli belong to the best period of Roman art, and it is not difficult to see how the worship of Apollo was gradually merged in that of his more spiritual Oriental representative. The Pater Bromius of the Cave of Mithras may, however, be designated by the title *Sabao*, so often repeated in company with *Adonai*; for Bacchus is often called *Sabazius* from the cry *Sabaoi* raised by his votaries during the orgies, a word clearly the same as the Hebrew *Sabi*, glory.⁷ *Adonai*, "Our Lord," is rendered by the Greeks *Adoneus*, a title of Pluto, and we have already seen the verse of Orpheus asserting the identity of Bacchus, Pluto, and Sol. This list of synonyms recalls the circumstance that the Syrian worship of Adonis was explained as typical of the sun's loss of power at the winter solstice. These sacred names Iao, Sabao, were degraded at a later period into charms for making fish come into the net. The mediæval doctors read Iao as Aio, and construing it as the cry of the peacock, promised wonderful effects from a gem engraved with this bird with a sea-turtle beneath it, and inscribed with this word. There is an amulet against the plague still current in Germany (probably the last surviving

⁷ Certain sectarians of the present day, who shout out this word at their "Revivals," are little aware what an ancient and respectable authority they may claim for the practice.

trace of this class of inscriptions), which is engraved on a thin plate of silver in this manner.

+ ELOHIM + ELOHI +					
+ ADONAI +	4	14	15	1	+ ZEBAOH +
	9	7	6	12	
	5	11	10	8	
	16	2	3	13	
+ ROQUEL + JOSIPHIEL +					

The numerals added together downwards, across, or diagonally make up the sum 34, perhaps in allusion to the time of Christ's ministry on earth. This table appears suspended over the head of *Melancholy* in A. Durer's famous engraving: the meaning of it *there* had long puzzled me until I met with the above plate in a little work by Kerner on Amulets.



Isiac Vase. Red Jasper.

ISIAC SYMBOLS.

The most detailed account preserved of the symbols and types used in the worship of Isis when still in its glory (in the second century), is the description of the procession given by Apuleius, *Met.* xi. "Next the crowds flow on of persons initiated into the divine mysteries, men and women, of every rank and of all ages, shining in the pure whiteness of a linen robe; the latter having their dripping hair en-

veloped in a transparent covering; the former with their heads shaven clean and their bare crowns shining white, the earthly stars of the nocturnal religion, raising as they went along a shrill tinkling with sistra of bronze, silver, and even of gold. But the chief performers in the ceremony were those nobles, who, clad in a tight linen robe descending from the waist to the heels, carried in the procession the glorious symbols of the most potent deities. The first held at arm's length a lamp, diffusing before him a brilliant light, not by any means like in form to those in ordinary use for illuminating our evening meals, but a golden bowl supporting a more ample blaze in the midst of its broad expanse. The second, similarly robed, held up with both hands the altar which derives its name from the beneficent providence of the supreme goddess. The third marched along bearing aloft a palm branch, the leaves formed of thin gold, and also the wand of Mercury. The fourth displayed the symbol of Justice, the figure of a left hand with open palm, which on account of its natural inactivity and being endowed with neither skill nor cunning, appeared a more fitting emblem of equity than the right hand would have been. The same priest also carried a small golden vessel made of a round form like an udder, out of which he poured libations of milk. The fifth bore a winnowing fan piled up with golden sprigs; the last of all carried a large wine jar. Immediately after these follow the deities condescending to walk upon human feet, the first rearing terribly on high his dog's head and neck: that messenger between heaven and hell, displaying a face alternately as black as the night, and as golden as the day; in his left a caduceus, in his right waving a green palm branch. His steps were closely followed by a cow raised into an upright position; this cow was the fruitful symbol of the Universal Parent, the goddess, which one of the happy train bore with majestic steps supported

on his shoulders. By another was carried the coffer containing the mystic articles, and closely concealing the secrets of the glorious religion. Another bore in his happy bosom the awful image of the Supreme Deity: not represented in the form of a beast either tame or wild, nor of a bird, nor even in the shape of a human being, but ingeniously devised and inspiring respect by its very strangeness: the ineffable symbol of a deeper mystery and one to be veiled by the profoundest silence. But next came, borne in precisely the same manner, a small vase made of burnished gold and most skilfully wrought out into a hemi-spherical bottom, embossed externally with strange Egyptian devices. Its mouth, but slightly raised, was extended into a spout and projected considerably beyond the body of the bowl, whilst upon the opposite side, widening as it receded to a capacious opening, it was affixed to the handle on which was seated an asp wreathed in a knot, and lifting on high its streaked, swollen, scaly neck."

The "vase shaped like an udder" is the exact description of that seen so often upon the gems, and which Matter so strangely explains as the vessel containing the sins of the deceased, a most unlikely subject to be chosen for an amulet intended to gain the favour of the heavenly powers. The winnowing fan often occurs placed upon this vase; and the golden bowl used as a lamp is often met with in the group of emblems which sometimes fills up one side of these intagli. Anubis, in order to display by turns a golden and an ebon visage, must have been represented with two heads in his image carried in this procession, just as he appears with wand and palm in the Basilidan representations. The mysterious figure of the Divinity too awful for Apuleius to describe, from the strange expressions used by him to describe it as "neither beast, bird, nor man," I am tempted to believe must have been a compound of all three—very probably a statuette of our friend Abraxas himself, for it was of small

size, being carried hidden in the bosom of the priest's robe.⁸ This theory is confirmed by the circumstance that a bronze figure five inches in height, found in the South of France, now exists in the Mertens-Schaafhausen Collection, whence the following description of it is extracted. "No. 2062. Statuette of *Iao* standing, armed with cuirass and buckler and whip, his head in the form of a cock's, his legs terminating in serpents."

From the extreme rudeness of many of these intagli, there can be little doubt that the manufacture of them was carried on long after the date usually assigned for the total extinction of the Glyptic art in Europe. The mechanical proceedings of this art are so simple and the instruments required in it so portable and inexpensive, that the sole cause of its being discontinued in any age must have been the cessation of the demand for its productions. But we actually have many Byzantine camei of the Middle Ages, and as the Manichean branch of the great Gnostic heresy flourished down to the thirteenth century under the names of Paulicians, Bulgarians, Albigenes, and Cathari, some of the extremely barbarous engravings in which the last trace of ancient art has disappeared may justly be referred to a period long subsequent to the fall of the Western Empire. We shall see that Marbodius, in the eleventh century, speaking of the Turquois and the Beryl, orders that certain figures should be cut upon them in order to endow them with magical powers. This he would hardly have done, if the art of engraving had been totally unknown in his day; for at a later period, when such was actually the case, we find the mediæval philosophers always using the expression, "if a gem *be found* engraved with such

⁸ It must be remembered also that all writers agree that *Iao* was an Egyptian deity.

or such a figure," thus proving that they were entirely dependant upon chance for the acquisition of these invaluable talismans, and that they had no artists within their reach capable of executing such designs according to their prescriptions. It was not the antique origin of these amulets, although ascribed to the ancient Hebrews, and thence called *Jews' Stones*, that alone gave them their mystic potency, for plenty of instances subsist of charms cut in mediæval times on metal rings, in the characters of the period, a most curious instance of which is that figured by Caylus, VI., cxxx. A gold ring formed out of a square bar of equal thickness throughout, each side covered with an inscription in Lombardic characters, apparently in barbarous Greek but containing many Gnostic epithets, as follows :—

+ OEGVTĀĀ + SAGRĀ + hOGGRĀ + IOTHe + hENĀVEĀET
 + OCCINOMOC + ON + IKC + hOGOTE + BĀNGVES + ĀLPĀ + 7IB
 + ĀNĀ + EGNETON + ĀIRIE + OIRĀ + ĀGLĀ + MEIDĀ + ĀDONĀI
 + hIERNĀTHOI + CEBĀI + GUTGUTTĀ + ICOTHIN +

This talisman was found in France and doubtless had belonged to some noble Albigeois of the thirteenth century, as may be inferred from the form of the characters of the legend. Another favourite charm was the names of the three Kings of Cologne, Casper (or Jasper), Melchior, and Balthasar; also the inexplicable words "Guttu Gutta Thebal Ebal," IHS Nazareus, and numerous similar inscriptions of magical effect. From these instances we may conclude that they would have gladly multiplied the natural powers of the gems themselves, by engraving the miraculous *Sigilla* upon them, had not the art entirely disappeared from the cities of mediæval Europe. Indeed at the very commencement of the Revival we find Camillo Leonardo prescribing how and at what seasons such talismans ought to be engraved to acquire the promised powers: and in looking over miscellaneous lots

of stones in Italy one meets with abundance of planetary magical, and invocatory intagli, evidently the productions of the sixteenth and seventeenth centuries. I have never seen any *camei* bearing Gnostic representations: a strange fact if we consider the extensive use of these amulets under the Lower Empire, and one which proves the complete discontinuance of the art of engraving *camei* at that time. The unique cameo in my possession representing Anubis in the character of Hermes, above alluded to, from its high finish and careful execution was most probably the ornament of some believer in the Egyptian *ancient* doctrines, of the age of Apuleius.

MEDICAL STAMPS.

Medical stamps are small stone tablets with inscriptions cut upon their face and edges, giving the name of the medicines and that of the maker or inventor; and were used for stamping the boxes containing them, in order to guarantee their genuineness, exactly like the present method of authenticating patent medicines by means of a seal. It is curious that most of these stamps belong to eye-salves. Such preparations must have been in great request among the ancients, who suffered greatly from diseases of the eyes, of which more than two hundred were specified by their oculists. This liability to such complaints was due probably to their custom of always going bare-headed, and passing from their confined and gloomy rooms into the full blaze of a southern sun, without any protection to the eyes. In the Herz Collection was a large Sard, engraved with a figure of the goddess Roma seated, inscribed HEROPHILI OPOBALSAMVM. The surface of the stone was much worn by use, and showed thereby the great demand there must have been for the boxes containing this preparation, which may have derived its name from the famous phy-

seian, the founder of the Alexandrian school of medicine. This intaglio was purchased for the British Museum at the high price of 8*l.*, although the work of it was rude and of late Roman date. In fact, the stone itself had very much the appearance of a paste; the letters also of the inscription were very large and ill-formed.

The inscriptions on these stamps are so curious, and throw so much light upon the subject of the patent medicines of antiquity, that it is worth while to give here an abstract of Caylus' excellent dissertation upon them (i. 225). It will be observed that they all refer to collyria, or medicines to be applied to the eyes.

The two first were found at Nimeguen, and bore the inscriptions,—

M. VLPI. HERACLETIS. STRATIOTICVM.
 ----- DIARRODON . AD . IMP.
 ----- CYCNARIVM . AD . IM.
 ----- TALASSEROSA.

This stamp served for authenticating the genuineness of four different sorts of salves, prepared by a no doubt noted oculist, M. Ulpus Heracles, very likely a freedman of Trajan's, from the fact of his bearing the same family name; and besides, in Roman times, physicians were generally Greek or Asiatic slaves by origin. The Stratioticum was a remedy for the ophthalmia, to which soldiers were subject; the Diarrodon (rose-salve) for *Impetus*, or inflammations of the eyes; Cynarium, a white ointment made of emollient ingredients, for the same complaint; Talasserosa, one into the composition of which bay-salt entered. The second stamp bore the name of the same person, with those of four additional salves:—Melinum, compounded with verdigris; Tipinum, an extract from the plant called Typhe; Diarces, for Diacroces, saffron-ointment; and Diamysos, salve of *misy*, or red vitriol.

The third stamp, given by Spon, has the name of another oculist :—

' C. CAP. SABINIANI . DIAPSORICVM . AD . CALIG.
 ————— CHELIDON . AD . CLAR.
 ————— NARDINVM . AD . IMPETVM.
 ————— CHLORON . AD . CLAR.

Of these, the first was a remedy for the *Psora*, or dry ophthalmia, and *Caligines*, or dimness of sight; the second, an extract of the well-known herb *Celidony*, to clear the eyes; the *Nardinum*, of many minerals combined with nard; the last, *Chloron* or green salve, of sulphate of copper, to clear the sight.

The fourth stamp, found at Gloucester, reads,—

Q. IVL. MVRANI . MELINVM . AD . CLARITATEM.
 ————— STAGIVM . OPOBALSAMAT . AD.

The second of which was an extract of the juice of balsam, to be dropped *stactum* into the eyes, and therefore an astringent application.

The fifth bears the name of Q. Caer. Quintillian, and his salves :—*Stacta ad Clar.* *Dialepid.*, an astringent derived from the *Lepidium*, or wall-pepper; *Diasmyrn*, salve of myrrh; and *Crocod.*, or saffron ointment. This was found near Coutances in Normandy.

The sixth came from Dijon, and bears the name of M. Sul. Charito. It served to stamp his gallipots of *Isochrysa ad clar.*, or *golden ointment*; *Diapsor.*, already named; *Diarrhodon ad fervor.*, or a remedy for the burning heat of the eyes; and *Diasmyrn.*, as already described.

The seventh, found at Besançon, has the name of G. Sat. Sabinian, and his salve *Diacherale*, the derivation of which is not known.

The eighth, also from Besançon, gives the name of L. Saccus Menander, and his four collyria :—*Chelidonium ad cal.*; *Meli-*

num delac.. or distilled; Thalasseros. delact.; Diapsoricum ad sc., or *ad scabiem*, the dry ophthalmia.

The ninth, from Mandeuve, bears the name of C. Sulp. Hypnus, and is inscribed with the titles of his Stactum Opob. ad c.:—Dialepid ad Aspri, for *Aspritudines*, or warts on the eyelids; Lysiponum ad suppurationem, an emollient for the cure of gatherings on the lids; and lastly his Coenon ad claritatem, or universal ointment, to clear the sight.

The tenth is in the Collection of Antiques, Paris. It is unfortunately broken, but the original reading was perhaps Decimi P. Flaviani Collyrium lene m. ad aspritudinem oculo., and Decimi P. Flaviani Collyrium mixtum c.



Decimus's Stamp. Sard

M. Tôchon d'Anneci published in 1816 a brochure upon these stamps, in which he described thirty examples, by adding those of his own collection, and others unpublished that had come to his knowledge, to the nineteen previously described by Sacius. Of the unpublished are IVNITAVRI CROCODPACIANADCICATETREVM ("Juni Tauri Crocod. Pacianum ad cicatrices et rheumata"), and IVNITAVRICROCOD DAMISVSACDIATHESISETREV., or Juni *Tauri* Crocod. diamysus ad diathesis et rheumata. Here diathesis, rheumata, and epiphora, are various kinds of ophthalmia. Another stamp has DIAMISVS ADDIATHETOL, or Diamysus ad diatheses et omnem

Lippitudinem, the last two words occurring at full length on some of these stamps as well as in the abbreviated form.

The "Tipinum," for Tiphynum, was of the same nature as the "Lirinum," ointment of lily, for the Tiphynon is classed by Pliny amongst the liliaceous plants. The "Diacherale," hitherto unexplained, Visconti interprets as "diaceratos lene," a salve composed of hartshorn.

The "Authemerum" of another stamp is a salve to be prepared every day, as being liable to spoil by keeping, like our golden ointment.

Another is PHRONIMEVODES ADASPRIETCIK. ("Phronymi euodes ad aspri. et cik."), a singular substitution of the k for the c.

Seneca (Ep. lxiv.) alludes to these medicaments and the diseases of the eye for which they were employed:—"Hoc asperitas oculorum conlevatur, hoc palpebrarum crassitudo tenuatur, hoc vis subita et humor avertitur, hoc acuitur visus."

Another salve named upon these stamps is the "Floginum" (Phloginum), made from the juice of the phlox, and the "Sarcophagum," or corrosive, an application for ulcers.

BRONZE STAMPS.

This subject introduces naturally the consideration of the very numerous class of metal stamps formed with a handle at the back, and made for impressing the name and titles of the owner on clay, either used as a seal, as is still practised in the East, for securing the doors of storehouses and cellars, or for stamping the pitch and gypsum stoppings of the necks of amphoræ and other vessels. They were also employed by potters for impressing their names on the handles of the huge jars of their fabrique or in the centre of tiles, in the latter case often giving also the name of the emperor for whose

buildings they were working. But a most singular fact relating to these objects is that the bulk of them are found with the letters in relief, and therefore must have been intended to be inked over, and impressed upon the parchment or papyrus of the legal document as an official authentication, so nearly had the makers of these fixed types approached to the principle of stereotype printing. It is evident that these inscriptions, being in relief, could not have been designed for stamping clay or wax, on which substances the impressions themselves are always found in relief. It necessarily follows therefore that they were employed to save time in applying the necessary signatures to a large number of documents required simultaneously, precisely as the stamps now used in the passport bureaux of the Continental States.



Jupiter, Sol, Luna. Opal.

SUBJECTS OF INTAGLI.

Every collector of gems must have been struck with the extraordinary frequency with which certain subjects are repeated on gems, generally from causes that may be readily conjectured, although the rarity of other representations, that would seem to have had quite as many claims to recommend them to the engraver's notice, is very difficult to be satisfactorily explained. It will also be observed that many subjects are cut in preference upon particular sorts of gems; and the following is a rough attempt at a relative view of the

occurrence of the more usual representations, and of the varieties of stones which each class particularly affect:— First, beyond all dispute, are the figures of Victory, executed in every style, from that of the best epoch to the rude scratches of expiring art. Almost as frequent are the figures of Nemesis, that deity so justly revered by the ancient world, only to be distinguished from Victory by her being always helmeted and holding a bridle or a measuring-rod in her hand. Virgo or Erigone, a similar figure, is known by her cornucopia and rudder. These subjects, belonging to every date, are found in every material; those of the Lower Empire, however, occur very abundantly in Plasma. Next come eagles in all attitudes, and combined with various emblems, on the same kinds of stones as were employed for the preceding figures. Venus comes next after eagles in point of frequency, the sea-born goddess appropriately affecting the sea-green colour of the Plasma—a gem on which we rarely meet with other subjects than Venus, eagles, and Victories. Cupids, as a necessary consequence, also abound on gems, and give scope for the most elegant fancy on the part of the artist, in his representation of their various groups and attitudes, as engaged in various sports and occupations. Minerva takes the next place, and, as may be deduced from the style of the intagli, was the goddess who chiefly occupied the engravers under the Flavian family; for most of the neatly-executed gems with this type will be found identical in style with those on the reverses of the denarii of Domitian.* Roma, distinguished from the preceding by being

* The Medusa's Head, both as a profile, the type of Beauty dead, in reproducing which the most skilful artists of every age have emulated each other; and the living front-face (Gorgon, with snakes erect, and replete with energy and rage, are amongst the most numerous of all, the latter form being the most frequent when of late work. It even occurs upon the Gnostic gems, and, apparently from its universal use, was worn as an amulet to avert the Evil Eye. This seems proved

seated on a throne and holding an orb, is very frequent, especially on the gems of a later period. Now follows the turn of Bacchus, old, young, bearded, beardless; the Dionysus, the Indian, the Liber Pater of the Romans, with all his train of Silenus, Fauns, and Bacchantes, who disport themselves as full figures, busts, and heads on all kinds of gems, yet appropriately affecting the Amethyst as a sort of antidote to their own influence. Mercury has been hitherto omitted, although



Cassandra mourning the doom of
Troy. Sard.



Minerva supporting the bust of
Domitian. Sard.

he ought to be placed on the same footing in the list as Victory herself, the god of gain being properly the favourite deity of all times, and, as may be shrewdly suspected from the late style of many of his figures, retaining his hold upon the finger of many a Christian convert who had made no difficulty of casting away his other gods of a more subtle and unworldly character. He will be found, the reason of it quite unknown, to occur very frequently upon Amethyst. Hercules, as the deity whose protection assured good luck, was a special favourite, particularly of the Romans under the Middle Empire; and his heads will be found engraved as it were in

by a red Jasper of mine, bearing the Gorgon's Head and the legend

APHRO-POMANDAPH.

"I protect Roromandares."

The letters, not being reversed, show that the stone was not intended for

a signet, but for a talisman. The profile heads of Medusa, on the other hand, will be found to be productions of the better times of the arts, and usually among the finest specimens of it remaining to us.

preference on the Nicolo. The bust of Jove, usually given as a front face, also is tolerably frequent; but much less so is the full figure of this deity seated on a throne—a singular circumstance, remembering how common a type this was of the Grecian coinage. Serapis, however, whose worship was so universal under the later emperors, claims by far the largest share of the intagli representing Jupiter. This divinity usually appears on the finest red Sardis that could be procured at the time. Ammon is met with but seldom, and *then* only on gems of an early date. Apollo is next to Serapis in point of popularity, together with his attributes, especially lyres, represented in a great variety of shapes. Diana¹⁰ is more unfrequent, still more so Juno, their characters doubtless being too prudish and severe to suit the temper of the times which produced the greatest quantity of the intagli existing. An infinite variety of masks, chimerae, and caprices, apparently all belonging to the same epoch (the second century), now appear, and usually on the red Jasper, a fine material, but almost unknown to earlier times. Ceres herself is not seen very frequently, although pictures of rural occupations are plentiful enough. Neptune is still more rare; still more so Saturn and Vulcan. As for Pluto, I have never yet seen a representation of so ill-omened a deity upon any gem. The head of Mars, or the god himself (an armed warrior holding a spear and shield), is by no means uncommon upon Roman gems. The same is the case with arms, especially helmets, on which the artists have often expended their utmost skill. As might have been expected in a people so passionately addicted to the games of the circus, chariots and

¹⁰ Though Sol occurs very frequently, both as a full figure, and as a bust, yet Luna is to be met with only in solitary examples even in the largest collections.

horses of all kinds, often mounted by fantastic riders, and furnished with grotesque steeds and charioteers, appear in vast numbers and in all varieties of material. Animals make up the majority of Etruscan intagli, especially in that rude class the origin of which can be distinctly assigned to the engravers of that nation. They also furnish, and in the same



Hercules throwing his club. Etruscan Scarab.



Type of the Satyric Drama. Red Jasper.

style of art, coarse representations of fauns and of the games of the gymnasium, but seem never to have attempted portraits. Of Roman date, the lion and the bull are the most common subjects, from their astrological import; then the various kinds of dogs and the wild boar, and every matter connected with the chase of this beast. The herdsman and the shepherd are amongst the most numerous class, and testify to the longings of the pent-up citizen for the quiet occupations of the country—aspirations so often expressed by the poets, “O rus! quando ego te aspiciam?” Of fishes the dolphin is the favourite, usually depicted as entwined around an anchor, a trident, or a rudder: the last type was the signet of Sextus Pompeius. The crawfish, a common device, is often cut upon the appropriately-coloured Plasma: this creature being taken by the Greeks as the emblem of prudence, was on that account so frequently selected as a signet by the ancients. Among insects the locust is common on gems: its form is that of our grasshopper, but it is in life often two or three inches long, and is now called by the Tuscans *la cavalla*.

This must not be confounded with the cicada or *cigala* of the Italians, which more resembles a huge fly in shape than anything else; and from its continuous song (a sound like the cry of the starling) was considered as an attribute of the god of music, and therefore was often engraved in company with a lyre, when it is sometimes mistaken for a bee by persons not acquainted with the real insect. Of birds, after the eagle comes the parrot, next the peacock and the raven: the last a prophetic fowl, and an attribute of Apollo. We have seen how Clemens Alexandrinus recommends the Christians of his own times to adopt for signets the dove, fish, the ship under sail, the lyre, the anchor, and the fisherman: of all which we find numerous intagli, and usually of the coarse execution betokening a late period. Gnostic gems have been already sufficiently considered: their number in Italy and France is incredible, and probably a tenth of all intagli discovered in those countries belong to this class. The Greek period gives us some magnificent portraits, but they are rare, and were most probably engraved only for the use of the person himself as his private signet, an usage we see alluded to in the 'Pseudolus' of Plautus. In the Roman period it seems to have been held a mark of loyalty to wear the portrait of the reigning emperor, which accounts for the vast number of such down to the time of Caracalla, and many of which, even of the early Cæsars, are of the most inferior execution, clearly manufactured at a cheap rate for the wear of the military and the poorer classes.¹ After this period, gold medals set in rings, and huge medallions suspended round the neck, took the place of engraved gems. It may here be remarked that the greater number of imperial portraits, particularly those of

¹ These imperial portraits are and bronze, thus proving the po-
often found set in rings of silver verty of their original wearers.

view of those composing the Mertens-Schaafhausen Cabinet, formed entirely of intagli, with few exceptions, antique, only 97 of the whole number being camei of various periods.

Sard and Carnelian 604	Emeralds 10
Calcedony 279	Crystal 8
Onyx 109	Chrysolite 4
Plasma 101	Beryl 3
Jasper, various 161	Ruby 2
Garnets 54	Sapphire 1
Amethyst 36	Opal 1
Jacinth 22	Turquoise 3
Lapis-lazuli 32	Nicolo 49

Besides these, there are a few in horn-stone, haematite, nephrite, loadstone, and Lydian stone or touchstone.



Oregon: Greco-Italian Cameo. Sard



Pompey, with his titles. Nicolo.

UTILITY OF CASTS FROM ANTIQUE GEMS.

The chief of archæologists, Visconti, remarks in his '*Esp. di Gemme Antiche*,' "How conducive the study and the accurate examination of ancient works in the precious stones, commonly termed '*Gems*,' is to the understanding of antiquities, and to every species of valuable erudition, as well as to the intelligence of the arts of design, and to the training of the eyes in the distinguishing of true and simple beauty, is an argument already sufficiently dilated upon by others, and unnecessary to be further discussed in this place. I must, however, preface my description of this collection of casts (made for Prince A. Chigi), by the mention of certain considerations which have served me as rules in drawing it up, as well as in the choice and formation of the entire cabinet. Two advantages, over all other existing relics of antiquity, are possessed by engraved gems, and both are connected with the service to be derived from them: the first is, that they are able to furnish accurate instruction, not to those present alone, whilst those absent are either entirely deprived, or must derive it from drawings merely, as the sole resource; drawings too, often incorrect, scarcely ever perfectly accurate, and which can only transfuse into the plate what the eye of the draughtsman (often an unskilled one) has been able to comprehend in the original of his design. Antique intagli, on the contrary, by means of the impressions from them, in a certain manner may be said to multiply themselves, and

are represented in perhaps a better point of view than the originals; from which circumstance these impressions serve equally well with the monument itself to build our reflections and our decisions upon, except in those very rare and exceptional cases where some peculiarity of mechanical execution of the work is concerned. The second advantage, and that one of the highest importance, is, that their very hardness of material, and the nature of the work on them, especially as regards *intagli*, to such a degree secure the integrity of these antique productions of art, that the representations, together with all their symbols and accessories, have been preserved without the slightest damage to the present moment; not mutilated, as is too often the case with works of art in marble, or as with medals, made illegible by wear, or changed and corroded by their long entombment amidst the acids of the earth."

PLASTER CASTS.

The collector of antique gems ought to take every opportunity of carefully examining all cabinets of *camei* and *intagli* to which he can obtain access, especially in the numerous small collections brought to London for sale during the season. As these are usually of the most miscellaneous character, and composed of works of all ages, gathered together without discrimination, he will have an opportunity of comparing every style, and thus by degrees of gaining the almost intuitive perception of antiquity, only to be acquired by practice. He will soon learn how never to pass over an antique as a modern work; the converse faculty will, however, be more slowly imparted to his eye, for the most experienced may sometimes be taken in by the exact imitation of the antique in some gem the production of the skilful artists of the last century. Much too may be learnt from

the careful study of casts from gems of undoubted authenticity, as regards the style and design, and the execution or the mechanical part of the work of different epochs, all which may be acquired nearly as well from the constant and minute examination of the casts as by that of the gems themselves. After some practice the student will find himself enabled to distinguish the casts produced by the various sorts of gems, by observing how different is the work on the Sard from that on the Plasma, how that on the Nicolo again has its peculiar touches, while the flowing and shallow work peculiar to the Jacinth is to be recognised at the first glance. The style of engraving on the Garnet also, when by chance a good intaglio on this gem *does* occur, has a peculiarity of its own, somewhat approximating to that of the Jacinth.

These plaster-casts are easily taken, and only require a little care in the manipulation to produce extremely accurate impressions: the process is as follows. The face of the gem must first be slightly oiled, to prevent the plaster from sticking in the lines of the intaglio. A little plaster must next be mixed with water to the consistence of paste, and then laid upon the intaglio with a fine brush, as if giving it a coat of paint, by which we prevent bubbles from forming on the surface of the cast, which would completely spoil it. Next surround the gem with a margin of thick paper to keep the plaster in shape, and lay upon the first coat any quantity of plaster mixed to a strong consistence, to give the required thickness to the cast; let it dry for half an hour, when it will be easily separated from the stone, and a perfect impression will be produced. This is the regular and somewhat tedious process; but I have found the two first steps of oiling and coating the gem may be dispensed with, by breathing for a few moments upon the gem, so as to make it thoroughly hot and moist before laying on the plaster, which if carefully

worked into the intagli with the end of the instrument (a fine wooden spatula is the best), will be found to yield a cast quite free from bubbles, and easily detached from the intaglio without risk of fracture. If the cast be dipped, when dry, into strong tea, it will take a light brown tint, much more agreeable to the eye than the glaring white of the plaster itself. I have also found that by laying upon the cast a coat of a strong solution of gum arabic, which it will soon absorb, a considerable degree of hardness as well as a pleasing marble-like gloss is imparted to the otherwise tender material; a valuable addition to casts that are exposed to much handling from the careless.

Casts of sulphur, coloured with vermilion, are made by melting it slowly in a ladle, and pouring it into plaster moulds made from the impressions of the gems in sealing wax. These are useful when one has no opportunity of taking casts from the gems themselves; otherwise the sulphur does not show the minute details of the intaglio so faithfully as the cast in plaster.

A lump of modelling wax is the indispensable companion of every collector in the examination of gems before making a purchase or passing judgment upon them, as by its aid alone can the work upon opaque substances be accurately examined. It is made by dissolving beeswax with one-tenth of its weight of tallow, adding a little powdered rosin to the melted mixture, and stirring all well together; when of the proper consistency it will not adhere to the fingers when handled. It may be coloured red or black, according to what colour is preferred, by adding vermilion or lamp-black to the mass when liquid. This composition, when moulded between the fingers, readily softens, so as to take the most accurate impression from an intaglio previously moistened by breathing upon it for a short time. These impressions, if

protected from friction, will remain perfect for any length of time, whereas those taken in sealing wax waste away with the heat of summer. For immediate use modelling wax may be made by adding a few drops of turpentine to wax melted and coloured to taste; this answers well enough for a few days, before the spirit has all evaporated, when it becomes too hard for use. It is, however, an excellent substance for preserving impressions in, as it resists the effects of heat and light, and looks remarkably well when made up into a series of casts arranged under glass. This was the wax employed for the mediæval seals, which have come down to us uninjured from very remote times. Our present sealing wax, or more properly sealing lac, as the Germans call it, was unknown in Europe until brought by the Dutch from India in the seventeenth century. Alexander, the prophet of Abonitichos, used, as Lucian tells us, to take casts of the seals of the letters deposited upon the altar of his temple, in a mixture of quicklime and glue. With this extemporised stamp he resealed the letters after having opened them; and thus was enabled to return answers adapted to the questions they contained, while the letters were returned to his dupes, to all appearance unopened.



— — — — —
Death of Aeschylus.



Polyphemus. Sard.

SECTION IV.—MYSTIC VIRTUES.



THE LAPIDARIUM OF MARBODUS.

THIS poem was probably composed by the abbot Marbodus (Marbœuf), when master of the Cathedral School of Anjou, an office he held from 1067 to 1081, in which last year he was made Bishop of Rennes. The substance of it is taken in part from Pliny, but chiefly from Solinus, of whom he paraphrases entire sentences. He also borrows largely from the so-called Orpheus, a work composed probably in the third century. This acquaintance of Marbodus with a Greek author is somewhat at variance with the prevailing opinion of the state of western literature at that period; but it is evident that he both understood that language, and was very proud of his knowledge, to judge from the number of Greek words he introduces into his text, and his careful interpretations of the names of gems derived from the Greek. It is my belief that Greek as a spoken tongue must have lingered in the south of France long after the fall of the Roman Empire. To its very close we find that language still flourishing there; thus, Ausonius says of his father, a physician of Bordeaux.

that he could not express himself fluently in Latin, but was a ready speaker in Greek,—

“ Sermone impromptus Latio verum Attica lingua
Suffecit culti vocibus eloquii.”

All the Gauls of this and later periods whose names are not Latin bear Greek cognomina, apparently translations of their own Celtic designations, as having generally a sylvan or rustic meaning; as, for instance, Agrius Cimarus for *Αγριος Χιμαρος*, the wild goat, to be seen on a sepulchral tablet at Caerleon, Syagrius, the last Roman prince of Soissons; Drepanius, Staphylius, Aeonius, Calippio, Dryadia, Euromius, Talisius, Cataphronia, Melania, Idalia; these latter all relations of the poet of Bourdeaux, Ausonius. Charlemagne, though quite illiterate, is said to have understood and spoken Greek, which would imply that it was necessary in his intercourse with some of his own subjects. In fact, as the large Greek cities of Provence, such as Marseilles, retained their independence under the Gothic kings to a very great extent, the extinction of their cherished language must have been both gradual and slow.

Marbodius indeed ascribes the original of his poem to Evax, and gives his dedicatory letter to Tiberius, written in very mediæval Latin, which last is evidently a composition of his own. But this attribution must be regarded merely as a poetical license, to give credit to the work in the eyes of the learned of those times; for he makes no difficulty of mentioning Nero (the sixth from Julius), when speaking of the properties of the emerald. Doubtless many ancient authors¹

¹ Such as Metrodorus, whom he quotes by name under “Coral”—and Zacharias of Babylon, who is mentioned by Pliny as having dedicated a treatise on gems to Mithri-

dates, in which he defined their influence over human destiny, “*gemmis humana fata attribuit.*”—xxxvii. 60.

were extant when he wrote besides Solinus and Orpheus, from whom he gleaned the rest of the curious superstitions as to the mystic and medicinal virtues of gems, in addition to those detailed by these two writers. Camillo Leonardo has borrowed largely from Marbodus in his treatise on the qualities of the gems in themselves, but the latter makes no mention in this poem of the virtues of the sigils cut upon them.

THE LAPIDARIUM OF MARBODUS.

THE lore of Evax, rich Arabia's king,
 Addressed to Nero in these lines I sing;
 Tiberius Nero who, so willed it Fate,
 Next to Augustus ruled the Roman state.
 Their different kinds, their varying hues I teach,
 What land produces, what the power of each.
 Thus while the bulky volume I compress,
 In more commodious form the sense I dress.
 This precious lore I from the crowd conceal,
 But to few friends, and those the best, reveal :
 For he that mysteries publishes profanes—
 Known to the vulgar secret nought remains.

10. Let three at most this sacred volume know,
 A holy number, holy things we show ;
 Who honour heaven and its commands attend,
 Whom manners grave, whom holy lives commend.
 For sure the hidden powers of gems to know,
 What great effects from hidden causes flow,
 A science *this*, to be to few confined
 And viewed with admiration by mankind.
 Hence may the healing art new aid derive,
 Taught by their virtue plagues away to drive ;
 For sages tell that by creative heaven
20. Distinctive potency to gems is given.
 And hoar experience surely doth attest
 The native virtue by each stone possessed.

Though in the herb a potent virtue lurks
Greatest of all that which in jewels works.

I.

- Foremost of all amongst the glittering race
Far India is the *Diamond's* native place ;
Produced and found within the crystal mines,
Its native source in its pure lustre shines :
Yet though it flashes with the brilliant's rays
A steely tint the crystal still displays.
Hardness invincible which nought can tame,
Untouched by steel, unconquered by the flame ;
30. But steeped in blood of goats it yields at length,
Yet tries the anvil's and the smiter's strength.
With these keen splinters armed, the artist's skill
Subdues all gems and graves them at his will.
Largest at best as the small kernel shut
Within th' inclosure of the hazel nut.
Another stone the swart Arabians find,
Broke without blood, of less obdurate kind :
Of duller lustre and of lower price,
In weight and bulk it yet the first outvies.
A third gives Cyprus, girdled by the main ;
The fourth Philippi's iron mines contain :
40. Yet all alike the obedient iron sway
As does the magnet, if this gem 's away ;
For in the presence of this sovereign stone
Robbed of its force an idle mass 'tis thrown.
In magic rites employed, a potent charm,
With force invincible it nerves the arm :
Its power will chase far from thy sleeping head
The dream illusive and the goblin dread ;
Baffle the venom'd draught, fierce quarrels heal,
Madness appease and stay thy foeman's steel.
Its fitting setting, so have sages told,
Is the pale silver or the glowing gold ;
And let the jewel in the bracelet blaze
Which round the left arm clasped attracts the gaze.

II.

50. Achates' stream, which through Sicilia's plains
 Winds his soft course renowned in pastoral strains,
 Named from himself the *Agate* first disclosed—
 A jet black stone by milky zones inclosed :
 With figured veins its varied surface strew'd,
 Painted by nature in a sportive mood.
 Now regal shapes, now gods its face adorn ;
 Such the fam'd *Agate* by King Pyrrhus worn,
 Whose level surface the nine Muses graced,
 Round Phœbus with his lyre in order placed.
 Strange to relate, 'twas to no artist due,
60. Nature herself the wondrous picture drew.
 Another *Agate* yields the Cretan shore,
 As coral red, with gold-dust sprinkled o'er ;
 An antidote against the poisoned draught,
 And for the treach'rous viper's venom'd shaft.
 Whilst on that *Agate* which dark Indians praise
 The woods arise, the sylvan monster strays :
 Placed in the mouth 'twill raging thirst appease,
 And its mild radiance the tired eyeballs ease.
 One fumes like myrrh if on the altar strewed ;
 Another is besprent with drops of blood :
 Whilst those which, like the comb, with yellow gleam,
 Are most abundant, but in least esteem.
70. The *Agate* on the wearer strength bestows,
 With ruddy health his fresh complexion glows ;
 Both eloquence and grace are by it given,
 He gains the favour both of earth and heaven :
 Anchises' son, by this attendant saved,²
 O'ercame all labours, every danger braved.

III.

Not least the glory of the gem renowned
 Within the belly of the capon found,

² A curious perversion this of Virgil's 'Fidus Achates.'

But pierced, and worn upon the neck or hand,
 A sure success in lawsuits 'twill command.
 Unlike the Jasper, of this precious stone
 Three hues alone are unto merchants known.

VII.

Of all green things which bounteous earth supplies
 Nothing in greenness with the *Emerald* vies ;
 Twelve kinds it gives, sent from the Scythian clime,
 The Bactrian mountain, and old Nilus' slime ;
 And some from copper mines of viler race
 Marked by the dross drawn from their matrix base :
 The Carchedonian from the Punic vale—
 To name the others were a tedious tale.

14. From all the rest the Scythian bear the palm
 Of higher value and of brighter charm,
 From watchful gryphons in the desert isle
 Saf'n by the vent'rous Arimaspians' guile.
 Higher their value which admit the sight,
 And tinge with green the circumambient light :
 Unchanged by sun or shade their lustre glows.
 The blazing lamp no dimness on it throws.
 Such as a smooth or hollow surface spread
 Like slumbering ocean in its tranquil bed,
 These like a mirror the beholder's face
 Exactly image with reflected rays :
 And thus did Nero, if report say true,
 The mimic warfare of the arena view.
 But best the gem that shews an even sheen,
 Lustrous with equal never-varying green.
 Of mighty use to seers who seek to pry
 15. Into the future hid from mortal eye.
 Wear it with reverence due, 'twill wealth bestow
 And words persuasive from thy lips shall flow.
 As though the gift of eloquence inspired
 The stone itself or living spirit fired.
 Hung round the neck it cures the ague's chill,
 Or falling sickness, dire mysterious ill ;

- Its hues so soft refresh the wearied eye,
 And furious tempests banish from the sky :
 So with chaste power it tames the furious mood
 And cools the wanton thoughts that fire the blood.
 160. If steeped in verdant oil or bathed in wine
 Its deepened hues with perfect lustre shine.

VIII.

- The Sard and Onyx in one name unite,
 And from their union spring three colours bright.
 O'er jetty black the brilliant white is spread
 And o'er the white diffused a fiery red :
 If clear the colours, if distinct the line,
 Where still unmixed the various layers join,
 Such we for beauty and for value prize,
 Rarest of all that teeming earth supplies.
 Chief amongst signets it will best convey
 170. The stamp impressed, nor tear the wax away.
 The man of humble heart and modest face,
 And purest soul the *Sardonyx* should grace ;
 A worthy gem, yet boasts no mystic powers :
 'T is sent from Indian and Arabian shores.

IX.

- Called by the Onyx round the sleeper stand
 Black dreams, and phantoms rise, a grisly band :
 Whoso on neck or hand this stone displays
 Is plagued with lawsuits and with civil frays ;
 Round infants' necks if tied, so nurses shew,
 Their tender mouths with slaver overflow.
 This the Arabian, this the Indian sends,
 And five the sorts to which its name it lends :
 Which name of Onyx, as grammarians teach,
 180. Comes from the usage of the Grecian speech,
 For what the name of *nails* amongst us bears
 Expressed in Greek as *Onyches* appears ;
 Yet if a Sardinian on thy finger shine
 'T will quash the Onyx' influence malign.

X.

The blood-red *Sardius* to its birthplace owes
 Its name, to *Sardis*, whence it first arose.
 Cheapest of gems, it may no share of fame
 For any virtue save its beauty claim :
 Except for power the onyx' spell to break :
 197. Of this odd sages five divisions make.

XI.

The golden *Cypride* a fiery blaze
 Mixed with the hue of ocean's green displays :
 Enchased in gold its strong protective might
 Drives far away the terrors of the night :
 Strung on the hairs plucked from an ass's tail,
 The mightiest demons neath its influence quail.
 Its potent amulet, of old renowned,
 Wear like a bracelet on thy left arm bound.
 'T is brought by merchants from those far off lands
 Where *Ethiopia* spreads her burning sands.

XII.

On with six facets shines the *Beryl* bright,
 Else a pale dulness clouds its native light ;
 The most admired display a softened beam
 200. Like tranquil seas or olives' oily gleam.
 This potent gem, found in far *India's* mines,
 With mutual love the wedded couple binds ;
 The wearer shall to wealth and honours rise
 And from all rivals bear the wished-for prize :
 Too tightly grasped, as if instinct with ire,
 It burns th' incautious hand with sudden fire.
 Lave this in water, it a wash supplies
 For feeble sight and stops convulsive sighs.
 Its species nine, for so the learned divide,
 210. Avail the liver and the tortured side.

XIII.

From seas remote the yellow *Topaz* came,
 Found in the island of the self-same name ;
 Great is the value for full rare the stone,
 And but two kinds to eager merchants known.
 One vies with purest gold, of orange bright ;
 The other glimmers with a fainter light :
 Its yielding nature to the file gives way
 Yet bids the bubbling caldron cease to play.
 The land of gems, culled from its copious store,
 Arabia sends this to the Latian shore ;
 One only virtue Nature grants the stone,
 Those to relieve who under hemorrhoids groan.

XIV.

- Three various kinds the skilled as *Hyacinths* name,
 Varying in colour, and unlike in fame :
 One, like pomegranate flowers a fiery blaze ;
 220. And one, the yellow citron's hue displays.
 One charms with paley blue the gazer's eye
 Like the mild tint that decks the northern sky :
 A strength'ning power the several kinds convey
 And grief and vain suspicions drive away.
 Those skilled in jewels chief the *Granate* prize,
 A rarer gem and flushed with ruby dyes.
 The blue sort feels heaven's changes as they play
 Bright on the sunny, dull when dark the day :
 But best that gem which not too deep a hue
 O'erloads, nor yet degrades too light a blue ;
 But where the purple bloom unblemished shines
 230. And in due measure both the tints combines.
 No gem so cold upon the tongue can lie,
 With greater hardness none the file defy ;
 The diamond splinter to th' engraver's use
 Alone its hardened stubbornness subdues.
 The citron-coloured, by their pallid dress,
 Their baser nature openly confess ;

With any kind borne on thy neck or hand,
 Secure from peril visit every land.
 On all thy wand'rings honours shall attend
 And noxious airs shall ne'er thy health offend :
 Whatever prince thy just petition hears
 Fear no repulse, he'll listen to thy prayers.
 Midst other treasures to adorn the ring
 240. This gem from Afric's burning sands they bring.

XV.

Parent of gems, rich India from her mines
 The *Chrysoprase*, a precious gift, consigns,
 As leaves of leeks in mingled shadows blent,
 Or purple dark with golden stars besprent ;
 But what its virtue, rests concealed in night :
 All things Fate grants not unto mortal sight.

XVI.

The Tyrian purple the rich *Amethyst* dyes,
 Or darker violet charms the gazer's eyes :
 Bright as the ruby wine another glows,
 Or fainter blush that decks the opening rose ;
 Another yet displays a lighter shade,
 Like drops of wine with fountain streams allayed.
 250. All these supplied by jewelled India's mart,
 Easy to cut, yield to the graver's art :
 The gem, if rarer, were a precious prize,
 But now too common it neglected lies ;
 Famed for their power to check the fumes of wine,
 Five different species yields the bounteous mine.

XVII.

The rapid swallow swifter than the airs
 Within her breast the *Chelidonian* bears,
 A fatal gift, deep in her bowels pent,
 Which with her life is from the owner rent.
 The *Chelidonian* is of might supreme,
 Though not of those which shoot a brilliant gleam .

- Yet many a gem that men for beauty praise,
 Unshapen, small, and dull, its worth outweighs.
260. The feather'd victims in their bowels stored
 Two different sorts—the white and red—afford :
 The pining sickness feels their influence mild,
 The moonstruck idiot, and the maniac wild.
 With force persuasive orators they arm,
 And grace the hearts of multitudes to charm :
 Wrapped in a *linen* cloth this present rare,
 Under thy left arm tied ne'er fail to wear ;
 The black, in *woollen* cloth thus too suspend,
 And bring thy measures to the wished-for end.
 It blunts the threats and cools the ire of kings,
270. And to the wearied sight refreshment brings.
 This in a yellow cloth of linen laid
 Will banish fevers that thy limbs invade,
 Or watery humours that with current slow
 Obstruct the veins and stop their healthy flow.

XVIII.

- Lycia her *Jet* in medicine commends ;
 But chiefest, that which distant Britain sends :
 Black, light, and polished, to itself it draws
 If warmed by friction near adjacent straws.
 Though quenched by oil, its smouldering embers raise
 Sprinkled with water a still fiercer blaze :
 It cures the dropsy, shakey teeth are fixed
 Washed with the powder'd stone in water mixed.
 The female womb its piercing fumes relieve,
 Nor epilepsy can this test deceive :
 From its deep hole it lures the viper fell,
 And chases far away the powers of hell ;
 It heals the swelling plagues that gnaw the heart
 And baffles spells and magic's noxious art.
 This by the wise the surest test is styled
 Of virgin purity by lust defiled.
 Three days in water steeped, the draught bestows
290. Ease to the pregnant womb in travail's throes.

XIX.

- The *Magnet* gem-crowned India brings to light
 Where lurks in caves the gloomy Troglodyte ;
 Coloured like iron and by nature's law
 Appointed iron to itself to draw.
 The sage Deendor, skilled in magic lore,
 First proved in mystic arts its sov'reign power ;
 Next far-famed Circe, that enchantress dread,
 To help her magic spells invoked its aid.
 Hence 'mongst the Medes hath long experience shown
 The wondrous powers inherent in the stone.
300. For should'st thou doubt thy wife's fidelity
 Unto her slumbering head this test apply ;
 If chaste she'll seek thy arms, in sleep profound
 Though plung'd :—th' adultress tumbles on the ground :
 Hurl'd from the couch, so strong the potent fume,
 Proof of her guilt, diffused throughout the room.
 If a sly thief slip through the palace door
 And strew unseen hot embers on the floor,
 And powder'd loadstone on these embers spread,
 The inmates flee possessed with sudden dread :
 Distraught with horrid fear of death they fly
310. While from the square the vapour mounts on high.
 They fly : within the house no soul remains,
 And copious spoils repay the robber's pains.
 The loadstone peace to wrangling couples grants
 And mutual love in wedded hearts implants :
 It gives the power to argue and to teach ;
 Grace to the tongue, persuasion to the speech ;
 The bloated dropsy taken in mead it quells,
320. And sprinkled over burns their pain dispels.

XX.

Whilst rooted 'neath the waves the *Coral* grows,
 Like a green bush its waving foliage shews :
 Torn off by nets, or by the iron mown,
 Touched by the air it hardens into stone ;

- Now a bright red, before a grassy green,
 And like a little branch its form is seen ;
 Of measure small, scarce half a foot in size,
 A useful ornament the branch supplies.
 Wondrous its power, so Zoroaster sings,
 And to the wearer sure protection brings.
 Its numerous virtues Metrodorus sage
 Has told to mankind in his learned page :
330. How, lest they harm ship, land, or house, it binds
 The scorching lightning and the furious winds.
 Sprinkled 'mid climbing vines or olives' rows,
 Or with the seed the patient rustic sows,
 'T will from thy crops avert the arrowy hail
 And with abundance bless the smiling vale.
 Far from thy couch 't will chase the shades of hell
 Or monster summoned by Thessalian spell ;
 Give happy opening, and successful end,
 And calm the tortures that the entrails rend.

XXI.

- From Asia's climes rich Alabanda sends
340. The *Alabandine* and its name extends ;
 In fiery lustre with the Sard it vies
 And leaves in doubt the skilled beholder's eyes.

XXII.

- Let not the Muse the dull *Carnelian* slight
 Although it shine with but a feeble light ;
 Fate has with virtues great its nature graced,
 Tied round the neck or on the finger placed.
 Its friendly influence checks the rising fray,
 And chases spites and quarrels far away :
 That, where the colour of raw flesh is found,
 Will stanch the blood fast issuing from the wound ;
 Whether from mangled limbs the torrents flow,
350. Or inward issues, source of deadly woe.

XXIII.

The Carbuncle eclipses by its blaze
~~All shining~~ gems, and casts its fiery rays
 Like to the burning coal; whence comes its name,
 Among the Greeks as Anthrax known to fame.
 Not even by darkness quenched its vigour tires;
 Still as the gazer's eye it darts its fires;
 A numerous race, within the Lybian ground
 Twelve kinds by mining Troglodytes are found.

XXIV.

Voided by lynxes, to a precious stone
 Congealed the liquid is *Lyncurium* grown;
 360. This knows the lynx and strives with envious pride
 'Neath scraped up sand the precious drops to hide.
 Surpassing amber in its golden hue
 It straws attracts if Theophrast says true:
 The tortured chest it cures, their native bloom
 Through its kind aid the jaundiced cheeks resume;
 And let the patient wear the gem, its force
 Will soon arrest the diarrhoea's course.

XXV.

Chief amongst gems the *Elites* stands
 370. Borne by the bird of Jove from farthest lands:
 As safeguard to his nest, and influence good
 To ward off danger from the callow brood.
 Shut in the pregnant stone another lies—
 Hence pregnant women its protection prize;
 With this gem duly round her left arm tied
 Need no mischance affright the teeming bride.
 Sober the wearer too shall ever prove,
 Shall wealth amass, and reap his people's love:
 Victory shall crown his brows; his offspring dear,
 380. Shall healthy live nor fate untimely fear.
 The epileptic wretch, saved by its worth,
 No more shall fall and writhe upon the earth.

- Should'st thou suspect thy friend of treason foul,
 The privy poisoner lurking in the bowl,
Thus prove his mind : him to thy banquet bid
 And let this stone beneath the dish be hid,
 When, if he harbour treachery in his thought,
 Whilst *there* the stone lies he can swallow nought :
 Remove the gem, delivered from its power
 The tasted meats he'll greedily devour.
 The stone they say is found, with scarlet dyed,
 Hid on the margin of old ocean's tide.
390. In Persian lands, in eagles' nests concealed,
 And by the Twins its virtues first revealed.

XXVI.

- Nor must we pass the *Selenites* by
 Whose hues with grass or verdant jasper vie,
 With the lov'd moon it sympathetic shines,
 Grows with her increase—with her wane declines ;
 And since it thus for heav'nly changes cares
 The fitting name of sacred stone it bears.
 A powerful philtre to ensnare the heart,
 It saves the fair from dire consumption's dart.
400. Long as the moon her wasted orb repairs
 To pining mortals these effects it bears ;
 Yet ne'ertheless, when Luna 's on the wane
 Men from its use will divers blessings gain.
 This stone, a remedy for human ills,
 Springs, as they tell, from famous Persia's hills.

XXVII.

- Gagatromæus*, differing in dye,
 Like brindled skin of kids delights the eye.
 Worn by the leader who to battle goes
 By sea and land he 'll crush his vanquished foes.
 'T was thus Alcides every danger braved
 And scaped unharmed by its protection saved,
 But lost the talisman (so sages tell),
410. The mighty victor soon a victim fell.

XXVIII.

When flash the levin bolts from pole to pole,
When tempests roar, when awful thunders roll,
From clashing clouds the wondrous gem is thrown—
Hence styled in Grecian tongue the *Thunderstone*.
For in no other spot this treasure's found
Save where the thunderbolt has struck the ground :
Hence named Ceraunias by the Grecians all,
For what we lightning they Ceraunus call.
Who in all purity this stone shall wear
Him shall the bolt of heaven ne'er fail to spare ;
Its presence too protects from all such harm
His city mansion and his blooming farm.
420. Nor if he voyage o'er the briny deep
Shall lightnings strike or whirlwinds whelm his ship.
Thy foes in law, in battle, it confounds,
And with sweet sleep thy grateful slumbers crowns.
Two different species of this potent stone,
Two different colours, are to mortals known :
One, like the crystal bright, Germania sends,
Which with its red an azure colour blends.
The Lusitanian with the pyrope vies
In flamy radiance, and the fire defies.

XXIX.

The *Heliotrope*, or "gem that turns the sun,"
From its strange power the name has justly won :
For set in water opposite his rays
As red as blood 'twill turn bright Phœbus' blaze.
And, far diffused the inauspicious light,
With strange eclipse the startled world affright.
Then boils the vase, urged by its magic power,
And casts far o'er the brim the sudden shower ;
As when the gloomy air to rain gives way
It storms evokes, and clouds the fairest day ;
It gifts the wearer with prophetic eye
Into the Future's darkest depths to spy.

- A good report 't will give and endless praise,
 440. And crown thy honour'd course with length of days.
 It checks the flow of blood, the wearer's soul
 Shall laugh at treason or the poison'd bowl.
 Though with such potent virtues grac'd by heaven
 One yet more wondrous to the gem is given.
 This with the herb that bears its name unite
 With incantation due and secret rite,
 Then shalt thou mortal eyes in darkness shroud
 And walk invisible amidst the crowd.
 The stone for colour might an emerald seem,
 But drops of blood diversify the green.
 'T is sent sometimes from Ethiopia's land,
 450. Sometimes from Afric or the Cyprian strand.

XXX.

- Experience old the *Geranites*' praise,
 Though dark of hue, amongst the first doth raise :
 For put this in thy mouth—first rinsed—and lo !
 What others of thee think thou straight shalt know :
 Implanted in it is imperious sway
 To make all women to thy wish give way.
 To test its force thy naked body smear
 With milk and honey, and this jewel wear ;
 Still shall it keep the greedy swarms at bay,
 Nor shall the airy host approach their prey :
 460. Remove the stone, instant the hostile brood
 Plunge myriad stings and suck the gushing blood.

XXXI.

In Corinth's Isthmus springs the *Hephæstite*,
 More precious than its brass, and ruddy bright.
 The seething caldron bubbling o'er the blaze,
 Cast in the stone, its fervent fury stays ;
 Tam'd by the virtue of the gem, as cool
 It falls as water in a tranquil pool.
 Nor flights of locusts, nor the scourging hail,
 Nor whirlwinds fierce shall thy fair fields assail ;

- Nor falling rust the growing crops shall blight
 That stand defended by its saving might.
 470. Held to the sun it shoots out fiery rays
 Dazzling the eye as with the furnace blaze :
 This burning stone sedition's fury charms
 And 'gainst all danger its possessor arms.
 But let this precept in thy mind be borne—
 Right o'er the heart this mineral must be worn.

XXXII.

- The *Hematite*—named by the Greeks from blood—
 Benignant nature formed for mortals' good :
 Its styptic virtue many a proof will shew
 To heal the tumours that on th' eyelids grow.
 480. And rubbed on darkening eyes it clears away
 The gathering cloud and gives to see the day :
 Rubbed in a mortar with tenacious glaire
 And juice of pomegranates, an eye-salve rare.
 Those who spit blood its healing power will own,
 As those who under cankering ulcers groan.
 It stays the flux that drains the female frame,
 And, powdered fine, proud flesh in wounds can tame :
 Dissolved in wine the oft repeated dose
 Will stop all looseness that excessive flows ;
 Dissolved in water 't will allay the smart
 490. Of poisonous serpents' bite or aspic's dart.
 If mixed with honey 't is an unction sure
 All maladies that pain the eyes to cure.
 This potent draught, as by experience shewn,
 Within the bladder melts the torturing stone.
 Of red and rusty hue, in Afric found,
 Or in Arabian, or in Lybian ground.

XXXIII.

- Of steely colour and of wondrous might
 Arcadia's hills produce th' *Asbeston* bright ;
 For kindled once it no extinction knows
 But with eternal flame unceasing glows :

500. Hence with good cause the Greeks Asbeston name,
Because once kindled nought can quench its flame.

XXXIV.

The mountains of the Macedonian bold
Within their mines the *Pæanites* hold,
Unknown the cause, with imitative throes
It heaves, and all the pangs of childbirth knows.
From some mysterious seed the wondrous earth
Conceives, and in due time excludes the birth ;
Hence teeming females its protection bless
In that last moment when their dangers press.

XXXV.

- Rarest the *Sagda* saw the light of day
Did it not yield itself a willing prey :
Sprung from the womb of the remotest deep
510. By some strange force it seeks the passing ship ·
Cleaves to the keel as to the port she flies,
(The crew unconscious of their priceless prize.)
But grasps the timber with so firm a fold
If *that's* not cut, it will not loose its hold.
Dark green its colour like the verdant *Prase*,
Its virtues high the learned *Chaldeans* raise.

XXXVI.

- The *Median Stone* dug up in *Media's* plains
At once a source of health and death contains :
This in a mortar of green marble brayed
With woman's milk now first a mother made,
Will to the blinded eye restore the sight
520. Although for many a year denied the light.
Mixed with ewe's milk that once has borne a male
It remedies the gout's tormenting ail :
It heals the liver in the panting breast,
Or injured reins by racking pains oppress ;
Store it in glass or else in silver pure,
And take it fasting 't is a sovereign cure.

But yet if thou to harm thy foeman seek,
 530. With it a deadly vengeance canst thou wreak :
 Do thou a fragment of the mortar take
 And mix with this and both together break,
 Then dropped in water offer it thy foe
 And bid him bathe as with a wash his brow ;
 Forthwith eternal darkness seals his eyes,
 Or if he drink, with riven lungs he dies.
 Black is the stone, not so its virtue shews :
 'Tis white to heal us, black to slay our foes.

XXXVII.

No force of blows can thee, *Chalazia* ! tame ;
 White as the hailstone and in form the same :
 Which potent nature with such coldness arms
 540. No furnace flame its icy crystal warms.

XXXVIII.

True to its name, the *Hexacontalite*
 In one small orb doth sixty gems unite ;
 With numerous hues for scanty size atones
 And singly shews the tints of many stones.
 Mid Lybia's deserts parched by burning winds
 The Troglodyte this rainbow jewel finds.

XXXIX.

The Indian tortoise yields a gem full bright
 With varying purple, *Chelonites* hight :
 Placed 'neath the tongue, as learned Magians shew,
 It gives the power the future to foreknow.
 To the sixth hour endures the magic boon
 Whilst fills her crescent horns th' increasing moon ;
 550. But at new moon the prescient power, they say,
 Lasts from the opening to the close of day.
 When at her fifteenth day she rides through heaven
 The same extent as at her prime is given ;
 But while her narrowing crescent nightly wanes
 Not past the break of day this gift obtains.

Like the Chalazias it the fire defies
And cold remains where hottest flames arise :

XL.

Midst precious stones a place the *Prase* may claim,
Of value small, content with beauty's fame.
No virtue has it ; but it brightly gleams
With emerald green, and well the gold besecms ;
Or blood-red spots diversify its green,
560. Or crossed with three white lines its face is seen.

XLI.

Crystal is ice through countless ages grown
(So teach the wise) to hard transparent stone :
And still the gem retains its native force,
And holds the cold and colour of its source—
Yet some deny, and tell of crystal found
Where never icy winter froze the ground ;
But true it is that held against the rays
Of *Phœbus* it conceives the sudden blaze,
And kindles tinder, which, from fungus dry
Beneath its beam, your skilful hands apply :
Dissolved in honey, let the luscious draught
570. By mothers suckling their lov'd charge be quaffed,
Then from their breasts, as sage physicians shew,
Shall milk abundant in rich torrents flow.

XLII.

The ashy *Galactite*, if mixed with mead,
Has likewise power milk in the breasts to breed :
Yet let the dame just rising from the bath,
Before she eats, the strength'ning potion quaff :
Or let the perforated stone be strung
On thread made from the wool of ewe with young ;
Thus, round the neck of nursing mother bound,
It makes her breasts with plenteous milk abound.
Tied round the thigh in parturition's pains
580. The trembling wife an easy labour gains.

This, mixed with salt and lustral water, bear
 Around thy fall ere Phœbus first appear,
 Then thy ewes' udders shall with milk abound
 And murrains fell be banished from thy ground.
 So high the ancients do its virtues raise
 That all the rest combined its worth outweighs :
 Yet, melted in the mouth, with frenzies blind
 And hideous fancies it disturbs the mind.
 From the bruised stone exudes a milky dew
 Of milky savour—if report be true.
 This potent gem Egyptian Nilus sends,
 300. Which Achelous by its birth commends.

XLIII.

Whether the savage beast with goring horn
 Or deadly fangs thy tender limbs has torn,
 Mix'd with rose oil th' *Oriz*, black and round,
 An argument sure, will heal the fatal wound ;
 Or if through desert wilds thy footsteps stray,
 'Mid tigers fell, 't will turn their teeth away.
 Another, green with spots of white o'erspread,
 Averts all dangers from the wearer's head ;
 Another, yet more famed, its surface shews
 As 't were with studs inlaid in bristling rows ;
 A smother face the underside displays,
 Like plate of polished steel it meets the gaze—
 301. Wearing this stone a woman ne'er conceives,
 Which of its load the burdened womb relieves.

XLIV.

Torn from the eyes of the hyæna fell
 The *Hyæna*, so the ancients tell,
 Or mortals can prophetic gifts bestow
 And give the power the future to foreknow :
 Clear to his soul futurity appears
 Who 'neath his tongue this potent substance bears.



XLV.

In Scythia's wilds the *Liparea* springs,
 Which all the sylvan tribes around it brings ;
 Whate'er the huntsmen chase with patient toil,
 610. Nor need they hounds or snares to take the spoil.
 Enough 'mid woods this talisman to wear
 The game will rush spontaneous on thy spear.

XLVI.

As from full sources gush the rapid rills,
 So the *Enhydros* ceaseless tears distils :
 Obscure the cause ; for if the substance flows,
 How is 't the stone no diminution knows ?
 Nor melts away ? And if external dew
 Sink down within and thus the fount renew,
 Would not its stream upon itself retreat
 620. When in the pores opposing currents meet ?

XLVII.

By the Red Sea the swarthy Arabs glean
 Th' *Iris* resplendent with the Crystal's sheen ;
 Its form six-sided, full of heav'n's own light,
 Has justly gained the name of rainbow bright :
 For in a room held 'gainst the solar rays
 It paints the wall with many-colour'd blaze,
 And where the crystal its reflection throws
 The heav'nly bow in all its splendour glows.

XLVIII.

Th' *Androdamas*, in figure like a die,
 In whiteness may with silver's lustre vie :
 Hard as the Diamond, found in shifting sand,
 630. Tossed by the wind along the Red Sea's strand ;
 As Magians teach endued with mighty power,
 To cool the soul with fury boiling o'er.

XLIX.

Though from the eyes each ail th' *Ophthalmius* chase
 Yet 't is the guardian of the thievish race :
 It girds the bearer with acutest sight
 But clouds all other eyes with thickest night ;
 So that the plunderers bold in open day
 Secure from harm can bear their spoil away.

L.

- The sea-born shell conceals the *Union* round,
 Called by this name as always single found.
640. One in one shell, for ne'er a larger race,
 Within their pearly walls the valves embrace.
 Prized as an ornament its whiteness gleams,
 And well the robe, and well the gold beseems.
 At certain seasons do the oysters lie
 With valves wide gaping towards the teeming sky,
 And seize the falling dews, and pregnant breed
 The shining globules of th' ethereal seed.
 Brighter the offspring of the morning dew,
 The evening yields a duskier birth to view ;
 The younger shells produce a whiter race,
 We greater age in darker colours trace.
 The more of dew the gaping shell receives,
 650. Larger the pearl its fruitful womb conceives :
 However favoring airs its growth may raise,
 Its utmost bulk ne'er half an ounce outweighs.
 If thunders rattle through the vaulted sky
 The closing shells in sudden panic fly ;
 Killed by the shock the embryo pearls they breed,
 Shapeless abortions in their place succeed.
 These spoils of Neptune th' Indian ocean boasts ;
 But equal those from ancient Albion's coasts.

LI.

- In the *Pantheros* varying colours meet,
 660. Where black and red, and green and white compete :

Here rosy light, there brilliant purples play,
 And blooms the gem with varying patterns gay.
 At dawn of day its potent beauties view
 So shall success thy doings still pursue,
 For all that day, defended by the charm,
 No foe shall e'er prevail to work thee harm.
 All travellers tell how 'midst far India's groves
 Beauteous in spotted hide the panther roves.
 How furious lions dread his piercing cry
 And trembling at the sound in terror fly.
 Marked like the beast that can the lion tame
 670. The spotted gem obtains the self-same name.

LII.

Mid gems *Apsyctos* is not last in place,
 And sanguine veins its ebon surface grace :
 A pond'rous stone, once heated at the flame,
 The fire conceiv'd scarce seven full days can tame.

LIII.

Like tinkling bronze the *Chalcophonos* rings
 And to the pleader vast advantage brings :
 For chastely worn it gives melodious notes
 And from rough hoarseness guards their straining throats.
 The stone conspicuous for its sable hue
 680. These gifts bestows if borne with reverence due.

LIV.

The *Molochites*' virtue keeps from hurt
 The infant's cradle, all mischance to avert,
 Lest spiteful witchcraft blast the tender frame.
 Virtue with beauty joined exalt its fame.
 Opaque of hue, with th' Emerald's vivid green
 It charms the sight, first in Arabia seen.

LV.

Of humble aspect, but of virtue rare,
 Like olive stones the *Tecolites* appear :

Extinguished in water by the patient quaffed.
 859. The ~~extinguishing~~ stone dissolves the potent draught.

LVI.

Named from the fire the yellow *Pyrite* spurns
 The touch of man—and to be handled scorns :
 Touch it with trembling hand and cautious arm,
 For lightly grazed it burns the closed palm.

LVII.

He that thus seek where deep the rivers flow
 To find the water spirits the Fates to shew,
 Take the *Leucis* within thy hand,
 No gem more potent doth the fiends command ;
 Within its net no time affrighted eyes
 Will myriad shapes of summon'd demons rise :
 But if once brought in contact with a corse,
 Forthwith the stone shall lose its native force.
 860. Take to the *Peryd* shines the potent stone
 Which shows the track of one by death o'erthrown.

LVIII.

The *Tungst.* black as ebony found,
 With rusty spots diversifies its ground.
 In water steeped, fragrant of wine it smells,
 And yet the fumes of wine its force dispels.
 A thing opposed to nature's wonted course,
 Water to wine converted by its force :
 And yet the madness rising out of wine
 Completely vanquished by this gem divine.

LIX.

The *Chrysiotrus* shines with golden rays
 Still verging on the brightest Amber's blaze :
 861. At early morning pleasing to the eye
 Not fading still as Phoebus mounts the sky ;
 Of purest fire its hasty nature made,
 In flames bursts forth if near a fire 'tis laid.



LX.

In Afric springs the *Chrysoprasion* bright,
 Which day conceals but darkness brings to light :
 By night a shining fire, it lifeless lies
 Like golden ore when day illumines the skies.
 Reversed is Nature's law where light reveals
 Whate'er in darkness shrouding night conceals.

LXI.

720. To adorn the finger-ring with inlaid stone
 Was first to men by wise Prometheus shewn,
 Who from Caucasian rock a fragment tore
 And, set in iron, on his finger wore.
 Next following ages hooped the precious gold
 And graced the ring with gems of worth untold :
 Then added Art ; thus luxury's course unchecked
 The unwonted hand with triple honours decked.
Now, human fraud, which nought untouched can leave,
 Art aping Nature, eager to deceive,
 730. Has learnt to imitate the jewel true,
 With lying glass, and thus beguile the view.
 Hence hard the real gems from false to know
 When pastes with imitative colours glow.
 Their boasted virtues soon as tested fail,
 And hence discredit does the true assail :
 Yet the true gem, by sages duly blest,
 In wondrous works its power will manifest.
 The name of gem of yore from gum arose,
 For like to gum its lucid clearness shews.
 Those not transparent have been named the "Blind."
 The name of stone is to each sort assigned ;
 Hence, gems describing and their virtues famed,
 The *Book of Stones* this work is rightly named.
 Gleaned from unnumbered hoards with patient toil,
 Let *this* suffice thee with the precious spoil :
 Where stones, their titles, colours, virtues rare,
 In sixty chapters duly ranged appear.



THE USE OF GEMS IN THE MIDDLE AGES

We have already noticed how Piny laughs at the "important lies" of the Magicians of his day, who ascribed supernatural properties to a few among the precious stones and to certain figures engraved upon them. The list of their virtues was considerably augmented in the few minutes intervening between him and Solinus, who again believed in their possessing the numerous properties which he details. But the fourteen "ages of man" and of ignorance, which had elapsed between the epoch of Piny and that of the sage physician of Cesare Borgia, had somewhat extended the number of magic and potent gems,

The first Man present was
the young Lincoln, sitting
in the front row, looking at the
speaker. He was the son of the
man who was the first to see
the light of the world in the
dark night of the year of a
hundred, in the month of a winter,
the very day of the birth of the
new world. He was a young man
of twenty years of age, and he
was the first to see the light of
the world in the month of a
winter, the very day of the birth of
the new world which they see.

To emeralds also they promise similar effects, if engraved with figures of beetles, or of eagles; all which stories I believe they must have concocted out of sheer contempt for, and in ridicule of, mankind.—xxxvii. 40. There can be little doubt that in the first sentence we should read “numen,” instead of “nomen,” and thus have the “figure or symbol of the goddess Luna, or of Sol,” which occur plentifully on gems of this date, whereas “names” of these deities do not.

and, at the same time, removed all disposition to sneer at or doubt their asserted virtues. Camillo Leonardo, in his alphabetical list of precious stones, carefully describes the peculiar virtues of each; of these I shall here give a few of the most extraordinary only, as they do not come so directly within the scope of this work as the interpretations he gives of the intagli engraved upon them. I may notice by the way, that his accounts of the gems and their origin are taken from Pliny and Solinus, but chiefly from Marbodius, whose meaning he often mistakes, and still oftener improves upon.

Diamond has the virtue of resisting all poisons, yet if taken inwardly is itself a deadly poison. (This notion, though quite ungrounded, long prevailed. Cellini details at length how his enemy P. L. Farnese, son of Paul III., attempted to poison him in Castel S. Angelo by causing diamond powder to be mixed in his salad, and attributes his escape solely to the fact that the lapidary employed to pulverize the stone had kept it for himself and substituted glass for it. Diamond powder is also enumerated among the poisons administered to Sir T. Overbury in the Tower.) It baffles magic arts, dispels vain fears, and gives success in law-suits. It is of service to lunatics and those possessed by devils, and repels the attacks of phantoms and nightmares, and renders the wearer bold and virtuous.

Balais Ruby represses vain and lascivious thoughts, appeases quarrels between friends, and gives health of body. Its powder taken in water cures diseases of the eyes and pains in the liver. If you touch with this gem the four corners of a house, orchard, or vineyard, they will be safe from lightning, storms, and blight.

Crystal worn by sleepers drives away evil dreams and baffles spells and witchcraft: powdered, with honey, it fills the breasts with milk. Its chief use is for making cups.*

* This remark is interesting, as vases of rock-crystal has been re-showing the early period of the introduced into Italy.
Revival at which the making of

Chrysolite takes its name from the Greek *crisis*, gold, and *oletus*, entire, *i. e.* all golden. The Ethiopian kind is fiery in the morning, golden by day. (Here the modern topaz is clearly intended.) Set in gold and worn on the left hand it drives away the demons of the night, also terrors and gloomy visions. Its chief virtue is to avail against the spells of detestable hags, and to overthrow all their witchcrafts. If bored through and strung on an ass's hair it is of more potency in expelling devils, and if held in the hand cools the burning heat of fevers.

Garatromeus, a yellow stone, with reddish spots like the skin of a roe, has the virtue of making the wearer invincible, wherefore Achilles always carried it about with him. The people of the East make their sword-hilts of this stone, that they may never be without it in battle. (This is the Gagat Romæus, or Greek Jet of the Arabians.)

One of the most wonderful of all was the Liparean stone, which gave the power of understanding the language of birds and beasts after the performance of certain rites, thus described by Orpheus (v. 685):

“Dolon,

My kindness to requite, a present brought,
The Liparean stone with virtues fraught,
Which erst his sire, directed by my lore,
Envoy to Memnon, from Assyria bore;
More precious far than gold the prize he gained,
From learned Magians with rich gifts obtained.
Treasure my words in thy believing heart
Whilst I my own experience thus impart.
First shouldst thou to the bloodless altar haste
On which no living victim must be placed;
With pious hymns to radiant Phœbus call,
And Earth, great Mother, giving suck to all.
Next melt this stone within the rising flame
Whose odorous fumes the long-drawn dragon tame.
These, as they mark the vapour mount on high,
Forth issuing from their holes towards it fly,
And hastening onward in a long array
The altar seek nor shun the light of day.

There let three youths robed in white vestments stand,
Each bear a sword two-edged in his hand,
And seize that snake which nearest to the blaze
Sniffing the fumes his spotted coils displays :
Then cut his body, as he slaughtered lies,
Into nine portions all of equal size.
Three, of all-seeing Sol the portions call,
And three of Earth, the mother of us all ;
And three the portions of the goddess dread,
The omniscient prophetess, th' unsullied maid.
Next, place the portions in a blood-red bowl
And add the gift of Pallas to the whole ;
The ruddy liquor of the jolly god,
And sparkling salt th' attendant of our food ;
And, brought from foreign lands, the pungent spice,
Rough-coated, black, and of enormous price ;
All other condiments which serve to excite
The dormant powers of jaded appetite.
Whilst seethes the caldron o'er the tripod's flame
Invoke each godhead by his secret name ;
Full well the powers above are pleased to hear
Their mystic names rise with the muttered prayer.
Pray that Megæra, aye contriving hurt,
Far from the bubbling caldron they avert,
But that the Spirit from the fount of light
Upon the sacred portions wing his flight.
When boiled the flesh, the solemn feast prepare,
But off the tripod each must eat his share.
All that is left, let earth close cover o'er,
Then on the hallowed spot libations pour—
Milk, and the ruddy wine, and fragrant oil,
With these combine the bee-hive's flowery spoil :
And last with chaplets woven from the boughs
Dear to the virgin-goddess crown your brows.
Nor let it shame you, though in open day,
Stripped of your robes to take your homeward way :
Nor once turn back as from the place ye come,
But with your eyes bent forward hasten home ;

And if a traveller meet you as ye go,
 Beware no greeting on him ye bestow
 But offered to the gods on your return
 Let fragrant spices on their altars burn
 These rites performed : all future thin
 What airy birds by all their warbling
 What beasts of prey as through the w
 Denote while answering with respons:

Lyncurius is of three kinds ; one fiery, like dark saffron, the third green. They cure the colic, jaundice, and king's-evil.

Ligurius is like the *Alectorius*, and attains pains in the bowels, fluxes, jaundice, and hence by some physicians it is used in eye is evidently a corruption of *Lyncurium*, a *Jargoon* or *Jacinth*.)

Nicolus, if of good colour, has a blue part black ; sometimes it is entirely black. It is a kind of *Calcedony*. It is said to be Greek (*Νικολας*). Its virtue is to render and beloved by his people. (Here we mean of the name *Nicolo* for this stone, and its the Greek to suit the virtue ascribed to it, Nations. It is curious that *Camillo*, both speaking of the *Sapphire* and *Turquoise*, uses with *caelestis*, azure. Hence the German,

Opal is good against all diseases of the eye strengthens the sight. It is not unfitted properties to this stone, which shows its colours and nature of so many different gem-vagant laudation ever passed upon any the description of an *Opal* given by *Petrus* 1610, whose words are as follows :—" The *Opal* tend greatly to the delectation of the have the very greatest efficacy in cheering the inward parts, and specially rejoice the eyes in particular came into my hands, in which

ness, and grace shone forth, that it could truly boast that it forcibly drew all other gems to itself, while it surprised, astonished, and held captive, without escape or intermission, the hearts of all who beheld it. It was of the size of a filbert, and clasped in the claws of a golden eagle wrought with wonderful art, and had such vivid and various colours that all the beauty of the heavens might be viewed within it. Grace went out from it, majesty shot forth from its almost divine splendour. It sent forth such bright and piercing rays that it struck terror into all beholders. In a word, it bestowed upon the wearer the qualities granted by Nature to itself, for by an invisible dart it penetrated the souls and dazzled the eyes of all who saw it; appalled all hearts, however bold and courageous; in fine, it filled with trembling the bodies of the by-standers, and forced them by a fatal impulse to love, honour, and worship it. I have seen, I have felt, I call God to witness, of a truth such a stone is to be valued at an inestimable amount!")

Obthalmius, said by some to be a stone of many colours, is of wonderful virtue in preserving the eyes from all complaints: it sharpens the sight of the wearer, but clouds that of the by-standers so that they cannot see him, if it be set with a bay-leaf under it, and with the proper incantation—a most admirable property!

Okitokius is a smaller stone than the *Echites*, but like it rattles inwardly; it is smooth to the touch and easily broken. If dissolved in the juice of the herb *Ocyma* (basil), and the blood of an *Okiteris* (swift), and a head of *Omis* and a little water, this mixture set in a glass vessel will be able to give a proof of its virtue. For if you dip your fingers therein and so anoint the strongest wood, metal, or stone, you will immediately break it.

Quirinus is a magical stone found in the nest of the Hoopoe; it has the virtue that if placed on the breast of a person asleep it will force him to confess his crimes.

The origin and the virtues of the Coral are thus given by Orpheus in one of the most poetical passages of his work (v. 505):—

“ The Coral too, in Perseus’ story famed,
Against the scorpion is for virtue named;

This also a sure remedy will bring
For murd'rous asps, and blunt their fatal sting.
Above all gems in potency 't is raised
By bright-haired Phœbus, and its virtues praised :
For in its growth it shews a wondrous change—
True is the story though thou 'lt deem it strange.
A plant at first it springs not from the ground,
The nurse of plants, but in the deeps profound.
Like a green shrub it lifts its flowery head
Midst weeds and mosses of old Ocean's bed.
But when old age its withering stem invades,
Nipped by the brine its verdant foliage fades :
It floats amid the depths of Ocean tossed,
Till roaring waves expel it on the coast.
Then in the moment that it breathes the air
They say, who 've seen it, that it hardens there.
For as by frost congeal'd and solid grown,
The plant is stiffened into perfect stone ;
And in a moment in the finder's hands
Late a soft branch, a flinty coral stands.
Yet still the shrub its pristine shape retains,
Still spread its branches, still the fruit remains.
A sweet delight to every gazer's eye,
My heart its aspect fills with speechless joy.
My longing gaze its beauty never tires
But yet the prodigy with awe inspires.—
Though to the legend I full credit give,
Scarce do I hope it credence will receive :
But yet to men, I ween, no lying fame
Has sung the terrors of the Gorgon's name ;
No idle tale the feat of Perseus, high
On airy wings careering through the sky.
Or how the hero slew 'neath Atlas' rocks
The dire Medusa tressed with snaky locks :
Monster invincible, with eyes of Hell,
Fatal to all on whom her glances fell ;
Who under that intolerable eye
To marble statues stiffen as they die.

E'en Pallas shrunk, indomitable Maid,
To meet the terrors of that look afraid ;
And warned her brother of the golden glaive
To avert his eyes as he the death-blow gave.
Hence by a wile he won the monster's head,
And severed from the neck her serpents dread,
And stealing from behind, with crafty skill,
Drew round her neck the curved Cyllenian steel.
Though slain the Gorgon, yet her face retains
Its ancient terrors, and its force remains,
And many yet were fated through its might
The realms to enter of eternal night.
Dripping with blood the hero seeks the shore ;
And while he cleanses from his hands the gore,
Still warm, still quivering, lays his trophy down
On the green sea-weeds all around him strown.
Whilst, tired by toil and by his weary way,
His limbs he strengthens in the cooling sea,
Pressed 'neath the head the plants upon the shore
Soaked by the stream, grow drunk with dripping gore.
The rushing breezes, daughters of the flood,
Upon the boughs congeal the clotted blood,
And so congeal they seem a real stone ;
Nor only *seem*, to real stone they are grown.
What, of its softness though no trace remains,
The withered plant its pristine form retains :
Tinged by the blood that from the trophy flows,
Instead of green, with blushing red it glows.
Struck with surprise the dauntless hero stares,
E'en wise Minerva his amazement shares,
And that her brother's fame may last for aye
Gives lasting virtue to the coral spray,
Ever its ancient nature thus to change.
She next endows the stone with influence strange :
For to the gem protective force she lent
To guard mankind on toilsome journeys bent ;
Whether by land their weary way they keep,
Or brave in ships the perils of the deep :

Of furious Mars to 'scape the lightning sword,
Or murderous onslaught of the robber horde :
Or when vexed Nereus tosses all his waves,
The potent Coral trembling sailors saves,
If they with vows the warlike, blue-eyed Maid,
Invoke, and claim in deep distress her aid.
The hid pollution which brings ruin down
On all the house, e'en to its lord unknown,
All baleful practice wrought by sorcery dire
Against thy weal when envious foes conspire ;
For all these evils by benignant heaven,
The Coral surest antidote is given.
Pound this, and mix it when thou sowest thy grain
It shall avert all damage from the plain :
The drought which parches with destruction sere
The milky juices of the swelling ear ;
The million darts which, flung by driving hail,
With hopeless wound thy smiling crops assail ;
Destructive insects too it scares away,
The caterpillars' troop, the worms' array ;
The rust which, falling on thy corn from high,
Reddens the ear, and burns its substance dry ;
The host of flies, the locust's countless swarms,
E'en Jove's dread lightnings from thy land it charms ;
Such honour pays he to the glorious deed
Of his great son, and grants the worthy meed.
And *this*, returning from earth's furthest shore,
His choicest boon to man sage Hermes bore :
But thou, still mindful of the powerful charm,
Drink this in wine and murderous asps disarm."

Amber has the same virtues as *Jet*, but in a higher degree. It is a preservative against all complaints of the throat, for which reason the ancients made their women and children wear amber necklaces. If placed upon the left breast of your wife when she is asleep, it will force her to confess all the naughty things she has committed. Its fumes drive away venomous animals. If you wish to know whether a woman has been debauched, steep

amber in water for three days and make her drink the water: if she is unchaste she will be immediately forced to void it.

Selenites, Moonstone, sympathises with the waning moon, its colour increasing or diminishing as the moon waxes or wanes. During the increase of the moon its virtue is to cure consumption. During her wane it hath wonderful potency, causing people to predict future events. If washed in water and the water taken in the mouth, if you think on future events, whether they are to happen or not: if they *must* happen, they will be so fixed in your mind, that it will be impossible for you to forget them; but if they are not fated to take place they will immediately vanish away from the mind.

Topazius, a gem of golden colour tending to green, and of very great lustre (the Peridot). The Oriental kind despises the file; the Occidental, of a greener hue, yields to it.⁵ If thrown into boiling water the water cools immediately; hence this gem cools lust, calms madness and attacks of frenzy, cures the piles, augments wealth, averts sudden death, and gives favour with the great.

Turquois is useful for riders. As long as one wears it his horse will not tire, nor throw him. It is also good for the eyes and averts accidents.

Hydrinus, called also Serpentine, is good against rheumatism and all complaints arising from excess of moisture. It restores dropsical persons to health, if they stand in the sun, holding it in the hand, for three hours, as it makes them discharge all the water in the form of a very stinking sweat. But great care must be had in using it, as it extracts not merely the foreign moisture but also the natural and radical moisture of the body. Taken inwardly it cures the stone, and venomous bites, likewise it drives away serpents.

Zumemo lazuli, or Zemech, or Lapis-lazuli, called for its beauty *lapis cælestis* and *stellatus*, as prepared by physicians, cures melancholy. From this also is made the colour called Azure Ultramarine.

Ziazia, so called from the place of its discovery, is black, white,

⁵ This is an exact definition of and yellower Chrysolite, and the the difference between the harder softer and greener Peridot.

and other colours mixed together. It renders the wearer litigious, and makes him see terrible things in his sleep.

Camillo, though copying Marbodus, mentions for the first time of any author I know, the name Sapphirine as applied to the Hyacinth. Like Marbodus, he divides the Jacinthus into three classes—the Citrini, of lemon colour; the Granatici, of the colour of the pomegranate flower; and the Veneti, of a sky-blue, which feel colder in the mouth than the other two sorts, and are also called *Water-gems*, Aquatici. (The French still call the pale Sapphire, Saphir d'eau.) Some also added a variety named Sapphirine; and this was considered the best, being of a brilliant and cœrulean colour. The Citrini showed a slight tinge of red. The Veneti were the least valuable of all, having a little red mixed with a faint lemon colour; but yet they were the hardest of all, and could scarcely be cut by the Diamond. This description shows a strange confusion of some sorts of pale Sapphires with Balais and Spinel Rubies, Oriental Topazes, and in fact all the varieties of the precious Corundum, all added to the blue Hyacinth of the Romans, which we see in this passage distinguished by the epithet Sapphirinus, or *azure*, which afterwards became its sole designation.

GEMS OF THE APOCALYPSE.

In St. John's vision of the New Jerusalem, the walls of the City are built out of twelve courses of precious stones. These are not arranged in the order of the gems in the High Priest's breastplate, as one would have naturally expected from so truly Hebrew a writer, but according to their various shades of colour, in the following succession, beginning from the foundation:—

1. Jaspis, dark opaque green.
2. Sapphirus, Lapis-lazuli, opaque blue.
3. Chalcedon, an Emerald of a greenish blue.
4. Smaragdus, bright transparent green.
5. Sardonyx, white and red.
6. Sardius, bright red.

7. Chrysolite, our Topaz, bright yellow.
8. Beryl, bluish green.
9. Topazion, or Peridot, yellowish green.
10. Chrysoprasus,⁶ a darker shade of the same colour.
11. Hyacinthus, Sapphire, sky-blue.
12. Amethystus, violet.

This arrangement of colours is not taken from that of the rainbow, the order of which is red, orange, yellow, green, blue, purple, violet. This minute acquaintance with the nicest shades of colour of the precious stones will strike the reader with the greater force if he should endeavour to arrange from memory, and by the aid of his own casual knowledge, twelve gems, or even a smaller number, according to their respective tints. He will find his attempt result in error, unless he has had a long and practical acquaintance with the subject. This image, however, of the Holy City built of precious stones is not original, as it is found in the prayer of Tobias (certainly a much older composition than the Apocalypse, whatever may be its date). In our version it stands thus:—"Jerusalem shall be built up of emeralds, sapphire, and all precious stones; her walls, and towers, and battlements of most fine gold . . . The streets of Jerusalem shall be paved with carbuncle, beryl, and stones of Ophir."

St. John frequently alludes elsewhere to the colours of gems in a very technical manner. "He that sat on the great throne" was like the Jaspis and the Sardius, and crowned by a rainbow like the Smaragdus; and the light of the City is like a "very precious stone, a jaspis crystallized," that is, the green of the Jasper, brilliant and transparent as crystal, by which he probably means to express the true Emerald. Such allusions, such exact knowledge of points

⁶ Chrysoprasus is probably an error for Chrysopaston, a dark blue studded with gold, as Marbodius has understood it, by which substitution all the shades of *blue* will follow each other.

only to be acquired by persons dealing in such articles, or otherwise obliged to acquire a technical knowledge of them, could not have been found in a Galilean fisherman, unless we choose to cut the knot with the sword of verbal inspiration. Here then may be another argument in support of the opinion that St. John the Evangelist and St. John Theologus were two different persons. It is hardly possible that the writer could have had in view any tradition derived from the Persians (the former masters of his native country), of the seven concentric walls of Ecbatana, coloured in the following order—black, white, red, blue, yellow, silver, gold, which probably had reference to the several planets, so important in the religious system of the Chaldees. The twelve colours were no doubt intended to have some fanciful analogy to the names of the twelve tribes; but Marbodius ingeniously applies them to the several virtues of the members of the Christian Church in the following poem, of which I give the original, as an interesting example of mediæval Latin verse.

MARBODI REDONENSIS EPISCOPI,

Prosa de xii lapidibus pretiosis in fundamento Cælestis Civitatis positis.

Cives cælestis patriæ Regi Regum concinite
Qui supremus est opifex civitatis Uranicæ,
In cujus edificio consistit hæc fundatio.

Sapphirus habet speciem cælesti throno similem,
Designat cor simplicium spe certa præstolantium
Quorum vita et moribus refulget et virtutibus.

Jaspis colore viridi præfert virorem fidei,
Quæ in perfectis omnibus nunquam marcescit penitus,
Cujus forti præsidio resistitur diabolo.

Pallensque Calcedonius ignis habet effigiem :
Subrutilat in publico, fulgorem dat in nubilo,
Virtutem fert fidelium occulte famulantium.

Smaragdus virens nimium dat lumen oleaginum :
Est Fides integerrima ad omne bonum patula
Quæ nunquam scit deficere a pietatis opere.

Sardonyx constat tricolor, homo fertur interior,
Quem denigrat humilitas, per quem albescit castitas,
Ad honestatis cumulum rubet quoque martyrium.

Sardius est puniceus cujus color sanguineus
Decus ostendit martyrum rite agonizantium,
Est sextus in catalogo ; Crucis hæret mysterio.

Auricolor Chrysolitus scintillat velut clibanus.
Præterdit mores hominum perfecte sapientium
Qui septiformis Gratiae sacro splendescit jubare.

Beryllus est lymphaticus ut sol in aqua limpidus,
Figurat vota mentium ingenio sagacium,
Quo magis libet mysticum sacræ quietis ostium.

Topazius quo carior eo est pretiosior ;
Exstat colore griseo ⁷ nitore et ætherio
Contemplativæ solidum vitæ præstat officium.

Chrysoprasus purpureum imitatur concilium :
Est intus tinctus aureis miscello quodam guttulis
Hæc est perfecta Caritas quam nulla sternit foritas.

Jacinthus est cœruleus colore medioximus,
Cujus decora facies mutatur ut temperies
Vitam signat angelicam discretione præditam.

Amethystus præcipuus decore violaceus ;
Flammas emittit aureas notulasque purpureas,
Præterdit cor humilium Christo commorientium.

Hi pretiosi lapides carnales signant homines,
Colorum est varietas virtutum multiplicitas ;
His qui cunque floruerit concivis esse poterit.

Jerusalem pacifera hæc tibi sunt fundaminea ;
Felix, Deo et proxima, quæ te daretur anima !
Custos tuarum turrium non dormit in perpetuum.

⁷ Griseo for Chryseo, golden.

Concede nobis Agie Rex civitatis cœlicæ
Post cursum vitæ labilis consortium in superis,
Inter sanctorum agmina cantemus tibi cantica.

The following passages of this author (which are appended in the original MS. to the above poem) are curious, as showing that the art of engraving upon gems was still practised in his age, the latter part of the eleventh century; unless we suppose that he had transcribed these rules from some more ancient writer.

The Calcedony if blest and tied round the neck cures lunatics. Moreover, he that wears it will never be drowned or tempest-tossed. It also makes the wearer beautiful, faithful, strong, and successful in all things. One ought to engrave upon it Mars armed, and a virgin robed, wrapped in a vestment and holding a laurel branch; with a perpetual blessing.

Aristotle, in his book on gems, says that an Emerald hung from the neck, or worn on the finger, protects against danger of the falling sickness. We therefore command noblemen, that it be hanged about the necks of their children that they fall not into this complaint. The Emerald is approved in all kinds of divination, in every business if worn it increases its owner's importance both in presence and in speech.

A Sard of the weight of twenty grains of barley, if hung round the neck or worn on the finger, the wearer shall not have terrible or disagreeable dreams, and shall have no fear of incantations or of witchcraft.

The Beryl is a large and transparent stone. Engrave upon it a lobster and under its legs a raven, and put under the gem a vervain leaf enclosed in a little plate of gold; it being consecrated and worn, makes the wearer conqueror of all bad things, and gives protection against all diseases of the eyes. And if you put this stone in water, and give this water to one to drink, it cures stoppage of the breath and hiccups, and dispels pains of the liver. It is useful to be worn, and he that hath this gem upon him shall be victorious in battle over all his foes. It is found in India like unto the Emerald, but of a paler cast. (I

may here observe that the lobster, with the bird *corniccia* beneath him, is the Oriental device of a scorpion seizing a bird in his claws; with two stars in the field, one of these intagli, of apparently Sassanian work on a large Sardonyx, was once in my possession. The perpetual flow of pilgrims to the East must have made these astrological gems familiar to the ecclesiastics of that age.)

The Sard is good to be worn, and makes the person beloved by women; engrave upon it a vine and ivy twining round it.

The Casteis (Callais, Turquois) is good for liberty, for he that hath consecrated it and duly performed all things necessary to be done in it shall obtain liberty. It is fitting to perfect the stone when you have got it, in this manner. Engrave upon it a beetle, then a man standing under it; afterwards let it be bored through its length and set on a gold fibula (swivel); then being blest and set in an adorned and prepared place, it will show forth the glory which God hath given it.



Psyche mourning the flight of Cupid.

MAGICAL SIGILLA.

We have seen how, in the days of Pliny (though he loses no opportunity of laughing at the superstition), the Magi ascribed extraordinary and supernatural properties to gems, and to various figures engraved upon them. As civilization

declined, these notions came more and more into vogue, so that even a learned physician, Alexander of Tralles, recommends the wearing of the intaglio of Hercules strangling the Nemean lion, as a charm against the colic; and such intagli *do* occur inscribed on the back with four Ks, to make assurance doubly sure. Gnostic stones frequently present inscriptions specifying the part of the body they were intended to protect from malignant influences, as *φυλαξον υγιη στομαχον Προκλου*, "Preserve in health the chest of Proclus;" as well as the others of a more general character already noticed, praying Abraxas Iao to protect the wearer from every evil spirit. A stone thus inscribed was called *Αποτελεσμα*, "an influence," a word originally signifying the influence of the stars on man's destiny; hence, *ἡ Αποτελεσματικη*, the name for astrology in classic writers; and the same word is corrupted into our *talisman*. As the spirits of the Gnostic mythology presided over the planets, their representations exerted their proper influence on the wearers of the gems, and thus the word came to signify exclusively the magic stone itself. Marbodius, in the eleventh century, has already greatly improved upon Pliny's list of wonder-working gems, and their *sigilla*, or intagli; but the succeeding ages, from the perpetual intercourse of Europeans with the Arabian schools, (from which the knowledge of all the useful sciences, as medicine, chemistry, and mathematics, not to mention astrology and alchemy, was again introduced into the West); these next four centuries brought the science of talismans to perfection, and laid down exactly what was the virtue of each particular representation to be found engraved on each particular kind of gem. The received doctrine on this subject is clearly enunciated by Camillo Leonardo, in his *Speculum Lapidum*, dedicated to Cesare Borgia, 1503, of whose Third Book I subjoin a summary, as it

will frequently serve to explain the legends accompanying many antique intagli, set in jewellery during the Middle Ages, as well as the value then placed upon many stones, quite irrespective of their beauty or workmanship. These "stones of virtue" were believed to have been engraved in the "times of the Israelites," a notion no doubt grounded upon the Hebrew words so frequent on the Gnostic intagli; those of the Roman times are only "voluntariæ," or fancy subjects, and have no other influence than that natural to the gem itself. All things material have a proper form, and are subject to certain influences; stones, being material, derive a virtue from a specific form, and are likewise subject to the universal influence of the planets. Hence, if they are engraved by a skilful person, under some particular influence, they receive a certain virtue, as if they were endued with life through the engraving; just as man's will is free, yet it is drawn by reason to do some determinate thing, to which it would not be drawn if reason were taken away. Similarly, the virtue of the gem is directed by the engraving upon it to a certain determinate effect, to which it was not directed before being engraved. But if the effect intended by the figure engraved be the same as that produced by the natural quality of the stone, its virtue will be doubled, and the effect strengthened. This virtue remains for ever, unless the stone be broken to pieces, and the figure totally destroyed. For the engraving, to be efficacious, must be made by "election;" that is, we elect a certain hour in which the influence of the particular planet is strongest, under which we design to engrave the stone, and thus, by election, the planetary influence is infused into the stone, and continues as long as the figure continues. For all astronomers agree that the starry influences acting by *election* are permanent in all things. And Ptolemy says, that virtue infused into a

virtue of the figure may be partly learnt from the property of the stone. And as the same stone often possesses different properties, so figures are found made up of parts of different animals, expressive of the various virtues of the gem itself.⁸ This appears on a Jasper of my own, which represents a figure with the head of a cock, a human body clad in armour, a shield in one hand, a whip in the other, and serpents instead of legs, all expressive of the various virtues of the Jasper, which are to drive away evil spirits, fevers, and dropsies, check lust, prevent conception, render the wearer victorious and beloved, and stanch the flowing of blood. All such figures are of the greatest virtue and potency.

SIGNS OF THE ZODIAC.

Astrologers divide the Signs of the Zodiac into four Trines, each composed of three, agreeing in their active and passive qualities. They assign one triplet to each of the four elements, as also a lord presiding over each.

First Trine, of Fire; Aries, Leo, Sagittarius, belongs to the East. Its lords are Sol by day, Jupiter by night, Saturn at dawn. Hence a gem engraved with any of these signs is good against all cold diseases, as lethargy, palsy, and dropsy, and makes the wearer eloquent, ingenious, and cheerful, and exalts him to honour and dignity. The figure of the Lion is the most potent amongst these, as this sign is the house of the Sun.

Second Trine, of the Earth; Taurus, Virgo, Capricornus, belongs to the South; of a cold and dry nature. Its lords are Venus by day, Luna by night, Mars at dawn. These figures are good against all hot and moist diseases, such as quinsy and corruption of the blood. Their wearers are inclined to rural occupations and the laying out of gardens and vineyards.

⁸ This is an ingenious explanation of the Chimerae, or grylli, which have been already described.

ram's head and slender body, and wrinkled legs. If found on a gem, especially a Kabres (a kind of crystal), it secures success in one's wishes, procures love, and exaltation to honours.

3. *Mars* is figured on gems in a variety of ways, sometimes holding a lance, sometimes a standard, also on horseback, but always in armour. It makes the wearer bold and successful in whatever he undertakes.

4. *Sol* is represented as the sun with rays, sometimes as a man with long hair seated on a throne, sometimes in a quadriga, surrounded by the Signs of the Zodiac. It makes a man powerful, fit to command, and fond of hunting, and lucky in getting wealth.

5. *Venus*, a woman in long robe and stole, and holding a laurel branch. It gives lightness in action, success in business, protects against fear of drowning, and produces authority.

6. *Mercury*, a slender man with a fine beard, but sometimes without one, with winged sandals and caduceus, often a cock at his feet, or a serpent beneath them. Its virtue increases knowledge and eloquence, and is of great benefit to traders.

7. *Luna* is variously figured, sometimes as a crescent, less than the half; sometimes as a maid in a car with horses, and a quiver; or a nymph with quiver, and hounds following a stag. This image gives success in embassies, and speed and facility in the execution of all business.

8. The *Bear* is represented by two bears entwined by a serpent, and is of a composite nature, for the Greater Bear belongs to Mars and Venus, the Lesser to Saturn, the Serpent to Saturn and Mars. This engraving makes the wearer cautious, crafty, and powerful.

9. The *Crown* is figured as a royal crown with many stars, and sometimes as the crowned head of a king. It is placed in the North, in the sign Sagittarius, and is of the nature of Venus and Mercury. It gives success and honour in kings' courts.

10. *Hercules*, a man killing a lion; sometimes a man with a lion's skin in his hand, or on his shoulders, with a club. It is placed in the North, in the Scorpion, and is of the nature of Mercury. If cut on a stone of similar virtue, such as the Agate, it gives victory in pitched battles.

Mars. If tied to a net it causes it to be filled with fishes, and gives good luck in angling.

19. *Pegasus*, a winged horse ; or the forepart of one with wings and without a bridle : placed in Aries, is of the nature of Mars and Jove, and gives victory in battle. If hung round a horse's neck, or put in the water he drinks, it will protect him from many diseases.

20. *Cetus*, the figure of a big fish with bent tail and wide mouth, placed in Taurus in the South, is of the nature of Saturn. If cut on a stone, with a large crested serpent with a long mane above it, it gives good luck at sea and restores lost things.

21. *Orion*, a man in armour or without, with a sword or a pruning-hook in his hand, placed in Gemini in the South, is of the nature of Jove, Saturn, and Mars. It gives the wearer victory over all his enemies.

22. The *Ship*, with lofty prow and swelling sail, both with and without oars ; placed in Leo in the South, is of the nature of Saturn and Jove, and protects from danger or loss at sea.

23. The *Dog*, Alabor, a figure of a greyhound with curled tail, in Cancer in the South, of the nature of Venus, gives the power, they say, of healing those lunatic, raving, and possessed by devils.

24. The *Hare*, a figure of a hare running, in Gemini in the South, has the nature of Mercury and Saturn, and defends against the wiles of the devil ; and protects the wearer against being hurt by any evil spirit.

25. *Centaur*, a man with a bull's head, holding in the left hand a spear resting upon his left shoulder, with a hare hanging from it. In his right he holds a little beast, back downwards, with a kettle hung to it. Its place is in Libra in the South, and it is of the nature of Jupiter and Mars, and has the virtue of keeping the wearer in perpetual health ; whence some fable that a Centaur was the preceptor of Achilles, because he always carried about him the engraving of a Centaur upon a stone.

26. The *Dog*, Alabor, is the figure of a dog seated ; in Cancer in the South. It is of the nature of Jupiter, and protects from dropsy and the bites of dogs.

power to increase the goods of this world, and to give cheerfulness and contentment.

2. Falcon, on a Topaz, gives favour with kings, princes, and nobles.

3. Astrolabe, on Sapphire gives wealth and the gift of prophecy.

4. Lion, on Garnet preserves in wealth and honour, and from danger on a journey.

5. Ass, on Chrysolite gives the power of prognosticating future events.

6. Ram, or Bearded Man's head, on Sapphire defends from many infirmities, from poison and oppression.

7. Frog, on Beryl reconciles people at variance if you touch them with it.

8. Camel's Head, or the Heads of Two Goats among Myrtles, cut on Onyx has the power of convoking and constraining demons, and makes one see terrible things in sleep.

9. Vulture, on Chrysolite has power over demons and winds, and defends places from them, and from the attacks of evil spirits, who are obedient to the wearer of the stone.

10. Bat, on Heliotrope gives power over demons, and is useful in incantations.

11. Griffin, on Crystal has the greatest virtue to fill the breasts with milk.

12. Man well dressed and holding something pretty in his hand, on Carnelian has the virtue to stop the flow of blood.

13. Lion, or Sagittarius, on Jasper is good against poison and fevers.

14. Man armed with bow and arrow, on Iris protects from harm the wearer and his abode.

15. Man with sword in hand, on Carnelian protects the wearer from witchcraft and the place he is in from lightning and tempest.

16. Bull, on Prase is good in working of spells, and gives grace in the Magisteria (proceedings of Alchemy).

17. Hoopoe, with the herb dragon in front, on Beryl has the virtue to evoke the water-spirits and to force them to speak. It also can call up the dead of your acquaintance and oblige them to give answers to questions.

6. Man seated, with a lighted candle in his hand, on Chrysolite makes the wearer rich ; and should be set in the finest gold.

7. Stag, Hunter, Dog, or Leopard, on any stone, have the virtue to curb demons, lunatics, and madmen, and those that war in the night season.

8. Woman, holding a bird in the one hand, in the other a fish, has the virtue of taking birds and fishes.

9. Horned Beast thus formed : the fore part of a horse conjoined with the hinder part of a goat, on any stone, is good in the breeding of cattle, and must be set in lead.

10. Woman with trumpet, on horseback, or Soldier with a horn ; on any stone, gives good luck in hunting.

11. Man kneeling and looking back, and holding a cloth, is lucky for buying and selling.

12. Vulture with a branch in his beak, cut on Pyrites and set in a silver ring : if you carry this with you, you will be invited to many feasts ; and being there all persons will gaze at you, and leave off eating.

13. Scorpion and Sagittary fighting together, cut on any stone : if you make an impression in wax of it, and touch therewith persons at variance, you will restore them to concord. It must be set in silver.

14. Ram and Lion : half-figure, if cut on any precious stone will pacify persons quarrelling if they be touched therewith. This also must be set in silver.

15. Woman, the upper part of the body, the lower part a fish, holding a mirror and a branch in her hands : if cut on a Jacinth, set it in a gold ring and keep it on your finger : when you wish to become invisible, turn the bizzle of the ring round towards the palm of your hand, shut your hand and you will become invisible.

16. Man in armour, having in his right hand a cross with stars, on any precious stone, is good for the safeguard of fruits and harvests, and protects places from damage by storms.

17. Basilisk or Syren, half woman, half a serpent ; on any precious stone has the power of putting to flight all venomous animals.

18. Basilisk fighting with a Dragon, and above them a man's

head, on Carnelian, and worn round the neck, gives the power of overcoming all beasts both of land and sea.

19. Man seated, and of bloated figure, with another man well clad, holding in one hand a cup, in the other a branch; if cut on Jet will cure all fevers, if worn for three days.

20. Man with bull's head and eagle's legs; cut on any stone, and carried about with you, will hinder people from speaking ill of you.

21. Man of great stature cut on the Diadochus (a sort of Beryl), holding in his right an obolus, in his left a serpent, with the sun above his head and a lion beneath his feet; set this in a lead ring, with a little wormwood and fennel under it; carry this with you to the banks of a river, and call up the evil spirits and you shall receive answers to all your questions.

22. Man with broad shoulders and thick loins, standing, and holding in his right hand a bundle of herbs; engraved on green Jasper is good against fevers; and if a physician carries it about with him, it will give him skill in distinguishing diseases and knowing the proper remedies. It is also good for hemorrhoids and instantly stops the flow of blood.

23. Sea-turtle, if cut on the stone of which touchstones are made, prevents the wearer from being injured by any one, and makes him beloved by his elders and his superiors.

24. Aquarius, on green Jasper, gives good luck in buying and selling, and affords good counsel to traders.

25. Bird with a leaf in its beak, and a man's head looking at it, cut on Jasper; set this in gold and carry it about with you, and you shall be rich, and worshipful in the sight of all men.

26. Jupiter seated on a chair with four legs, and four men standing before the chair; the hands of Jove raised towards heaven, and a crown upon his head; if cut on Jacinth and set in gold and worn, or even a wax impression hung around the neck, it shall obtain for the wearer whatever he may ask from princes and wise men.

27. Man with lion's head and eagle's legs, and below him a two-headed dragon with tail extended, and in his hand a staff, with which he smites the dragon's heads: this engraved on Crystal, or any precious stone, and set in aurichalcum (red

gold), with musk and ambergris under the stone; whoever carries about with him such a gem, all people of both sexes will incline to him, the Spirits shall be obedient unto him, he shall augment his substance and gather together great riches.

28. Man seated on an eagle, with a wand in his hand; if cut on Hephæstite, or on Crystal, must be set in a brass or copper ring. Whoso looketh upon this stone on a Sunday before sunrise shall have the victory over all his enemies. If he look upon it on a Thursday all men shall obey him willingly. But the wearer must be clothed in white garments and abstain from eating pigeons.

29. Man on horseback, holding a bridle and a bent bow; engraved on Pyrites makes the wearer irresistible in battle.

30. Woman with her hair hanging loose over her breasts, and a man approaching and making a sign of love to her; if cut on a Jacinth or Crystal, must be set in gold, and put under the stone ambergris, aloes, and the herb called *polium*: him that carrieth this stone in a ring all shall obey; and if you touch a woman with it she shall do your will forthwith. When you go to sleep put this under your head, and you shall see whatever things you desire in your dreams.

31. Man seated on a fish, and on the man's head a peacock, engraved on a red stone: if you put this under the table, no man that eateth with his right hand shall be able to satisfy himself.

32. Man, naked, with his arm round the shoulders of a maid whose hair is gathered round her head, and with his other hand upon her breast, the man looking into her face while she looks down upon the ground; cut on any stone, and set in an iron ring and under the stone a bit of the tongue of a sparrow, of a hoopoe, alum, and human blood in equal quantities, renders the wearer invincible by man or beast, and cures epilepsy. Also red wax stamped with it and hung round a dog's neck will prevent him from barking.

33. Man holding flowers; engraved on Carnelian, and set in a tin ring made on a Monday or Friday, at the first, eighth, or twelfth hour: touch whomsoever you will with this ring, and he shall obey you.

34. Man, bearded, with long face and arched eyebrows, sitting

a supply of this most efficient menstruum, the source whence Moses had obtained it having been lost in antiquity. He, therefore, had recourse to the following ingenious expedient: he inclosed the chick of an ostrich, or, as some say, of a hoopoe, in a glass bottle, and placed trusty persons to watch it. The parent bird, finding all her efforts to liberate her young in vain, flew off to the desert, and returning with the miraculous worm, by means of its blood soon dissolved the glass prison, and escaped with the captive. By repeating this process as occasion required, Solomon obtained the needful supply of this most useful solvent.

This legend is entirely based on the fact of the Smir, or Smiris (emery) used by the antique engravers; the name Samir being merely the Hebrew form of the Greek word. Hence, the fanciful rabbis having heard of the smir as the indispensable agent of the gem engraver, without further inquiry invented this ingenious legend as a most satisfactory solution of the question. They may, however, have been influenced by some faint tradition derived from Egypt, as to the existence of some solvent capable of rendering the hardest stones easy to be worked upon; a secret which, as we have already noticed, there are some grounds of believing was possessed by the ancient Egyptians.

OBSERVATIONS UPON THESE SIGILLA.

In looking over the foregoing list we recognise, as might naturally be expected, many of the usual Gnostic types, as in the "Man with vipers for legs" the Pantheistic deity Abraxas; the "Winged Man upon a serpent," probably the Athor or Sate of the same class; as is likewise the "Man standing on a serpent and holding its head in his hand." The "Names of God" on a gem must mean the

these well-defined subjects were mere grylli or caprices of the artist's fancy?

It will also be remarked that many of these talismanic figures have a real or supposed relation to the various Signs, and Constellations from which they derived their virtue; whilst others represent the ancient gods who were still believed by the astrologers to rule the planets in the character of Genii, although the unaccommodating orthodoxy of the age had summarily converted them into the demons of the new Tartarus.

The origin and invention of these Sigilla were naturally assigned to the ancient Israelites, on account of the numerous Hebrew words and titles of the Deity that occur on the Gnostic intagli, which the mediæval adept very consistently inferred could not have been the work of a race so degraded as the Jews had become, after that the sceptre had departed from Israel. It is very amusing to notice the curious interpretations put by these writers upon many of the common representations of ancient mythology, as on the group of Hercules and Iole, and of Hercules and the Hydra. The "King on a chair, his hands outstretched, and borne up by four figures," is the Manichean Ormuzd, supported by the angels of the elements: a type not unfrequent on Gnostic gems. The Lancer also is a favourite late Persian subject, which often bears the legend of "The Seal of God." But it is needless to point out more instances of the original meaning of these common subjects: the odd interpretation of many of them by the mediæval sages will amuse the reader who has any knowledge of antique gems; and this has been my chief motive for transcribing a portion of the somewhat tedious catalogue of the worthy physician of Pesaro.*

* The Ortocides Sultans of Amida of Irak, put on the obverse of their and Mardin, as well as the Atabeghs coins the types of the reverses of

we have seen that Orpheus ascribes great efficacy to their presence at sacrifices; doubtless they were interred with the corpse as a propitiation to the deities of the Shades. Dr. Dee's divining ball, so famous in the seventeenth century, and now in the British Museum, was probably a sphere of this class, which had accidentally come into the possession of that "egregious wizard."

I have seen two spherical gems of Roman date which must have been made for some magical use, as not being perforated they could not have been intended for ornaments, for which also their size and weight rendered them inappropriate. The first, a ball of red Jasper, $1\frac{1}{2}$ inch in diameter, was engraved with a small medallion containing various symbols; the second, formed of green Jasper (in the Herz Collection), had on the centre an engraving of Osiris and Isis, inscribed ΦA , probably for Pharia (compare the Isis Faria of the coins of Julian), and *this* was surrounded by twelve intaglio busts of deities, of very good execution. The *Sphere* was one inch in diameter. We perpetually meet in the poets with allusions to the $\text{I}\omega\text{X}$, Rhombus, Turbo, or magic wheel used by the ancient witches in their operations, and more especially figuring foremost in the list of philtres as possessing the power of inspiring love when spun in one direction, and of freeing the heart from its spell when made to revolve in the opposite one, as appears from Horace's prayer to Canidia:—

"Retro potentem, retro, solve turbinem."

"Reverse thy magic wheel and break the spell."

The Crystal Spheres now under consideration may have been the very instruments referred to by the poet: at least *that* employed by the famous sorceress Nico is expressly described as cut out of Amethyst in the dedicatory inscription given in the Anthology, v., 205.

as it is the present practice to call by that name the large beads of variegated glass so frequently found in this country, although these are in reality nothing more than the central ornaments of Roman, British, or Saxon necklaces. Very different was the true *Ovum Anguinum* which Pliny had seen worn as a badge of office by a Druid. He describes it as round, of the size of an apple, enclosed in a cartilaginous crust and covered with protuberances like the suckers on the arms of a cuttle-fish. It was evidently some natural production, not an ornament made by art, and the description of it resembles more that of a large *echinus* than anything else; could it have been some fossil species of that shell? The legend told by the Druids of its production was, that at a certain season an innumerable host of snakes collected together, and intertwining with each other produced from their collected foam this substance, and bore

“ The mystic egg aloft in air ;”

where it was necessary to catch it in a cloak before it fell to the ground, otherwise it lost its virtue. The captor was immediately pursued by the whole troop of serpents until he could cross a running stream, and unless enabled by the swiftness of his steed to escape his followers, woe unto him !

“ Ah Tam, ah Tam, thou'lt get thy fairing,
In hell they'll roast thee like a herring.”

The possession of this wondrous egg was supposed to give success in law-suits. To Pliny's own knowledge, a Gallic knight who had carried one in his bosom during the hearing of his cause, probably before the emperor himself, was executed for this attempt to pervert justice, by order of that “ wisest fool ” *Claudius Cæsar*. The opinion that this amulet was some sort of *echinus* is in some measure supported by

As to a god he sacrifices brings,
 And potent spells in mystic murmurs sings,
 Till, moved by offered prayer and mighty charms,
 A living soul the prescient substance warms ;
 Then in his arms he bears the thing divine
 Where kindled lamps in his pure mansion shine ;
 And as her infant son a mother holds,
 So in his arms the talisman he folds.
 And thou—when thou wouldst hear the mystic voice,
 Thus do ; and in the wondrous charm rejoice.
 For, when thou long hast dandled it on high,
 'T will utter forth a faint and feeble cry
 Like to a suckling's wail, when, roused from rest,
 It seeks refreshment from the nurse's breast.
 But with courageous heart perform the rite
 Lest thou the anger of the gods excite,
 If from thy hand, unnerved by sudden fear,
 Down to the ground thou dash the vocal sphere.
 Be bold, and dare the oracle to test,
 A true response 't will yield to each request.
 Then having bathed it hold it near thine eye,
 And mark in wondrous mode its spirit fly.¹
 Through *this* the Trojan to the Atridæ bold
 The coming ruin of his race foretold."

MAGIC RINGS.

The Gnostic rings of stone covered with incantations, already described, remind us of the Magic Rings mentioned by Clemens Alexandrinus, who quotes Aristotle to the effect that "Excectus, tyrant of the Phocians, used to wear two enchanted rings, by the clinking of which against each

¹ One might almost conclude from this line that the stone was the Hydropbane, or Oculus Mundi, of wonderful reputation in the Middle Ages,

because, when steeped in water, it becomes bright and opalescent, though naturally dark and dull.

PROPHYLACTIC RINGS.


Aristophanes, long before this, had humorously alluded to the practice of wearing rings as charms against evil spirits and serpents, in the reply of the honest man to the common informer : Plutus, 883.

“ I care not for thee : for I wear a ring
For which I paid one drachma to Eudemus.—
But 't is no charm against th' informer's bite.”

And Antiphanes in Athenæus III., 96, speaks of another kind exactly answering to the galvanic rings of to-day, a preservative against all manner of aches and pains : for the miser is introduced saying—

“ In a kettle,
Beware lest I see any one boil water.
For I've no ailment : may I never have one !
But if perchance a griping pain should wander
Within my stomach or around my navel,
I'll get a ring from Phertatus for a drachma.”

Alexander of Tralles recommends from his own practice, as a sure preservative against the colic, an iron ring, with this

figure  on the face, and cut with eight sides, on which must be engraved the words, two syllables on each side.

“ *φευγε φευγε ιου χολη ή κορυδαλος σε ζητει.*”

“ Fly, fly, Ho ! bile. the lark is after thee.”

PLANETARY RINGS.

Planetary rings, to which wonderful virtues were ascribed in the Middle Ages, were formed of the gems assigned to the several planets, each set in its appropriate metal, in the following manner :—

Sun : Diamond or Sapphire, in a ring of gold.
 Moon : Crystal, in silver.
 Mercury : Magnet, in quicksilver (how fixed ?)
 Venus : Amethyst, in copper.
 Mars : Emerald, in iron.
 Jupiter : Carnelian, in tin.
 Saturn : Turquoise, in lead.

GIMMEL RINGS.

These jewels, so often mentioned by our early poets, were formerly used very generally as love pledges and betrothal rings. The name is a corruption of *Jumelle*, or *Twin*, as they are formed of two flat hoops of gold, the one fitting nicely inside the other and kept in its place by a projecting rim on the edge of the exterior circle : so that both form apparently but one body. On each is engraved a name, or sometimes one line of a distich in old French :² the two hoops could be separated and worn singly, and thus could serve as credentials to the bearer, as well as for their original destination. The names found on them are those of the parties between whom they were interchanged ; thus the denouement of Dryden's '*Don Sebastian*' turns upon a ring of this kind.

" These rings, when you were born and thought another's,
 Your parents glowing yet in sinful love
 Bade me bespeak : a curious artist wrought them.
 With joints so close as not to be perceived.
 Yet are they both each other's counterpart.
 His part had Juan inscribed and hers had Zayda :
 You know these names are theirs ; and in the midst
 A heart divided in two halves was placed.

² "The peer of a ring," Shakespeare's synonym for something utterly trite and commonplace.

Now if the rivets of these rings inclosed
Fit not each other I have forged this lie,
But if they join you must for ever part."

DIVINATION BY RINGS.

The long list of the magical properties of gems and of the figures engraved upon them, believed in as indisputable truths during the times of the Lower Empire and of the Middle Ages, may be fitly concluded by the following curious account of a mode of ascertaining the future by means of a ring, a species of divination called Dactyliomancy. It is the confession under torture of Hilarius and Patricius, accused of conspiring to raise to the Empire a certain Gaul, Theodorus, in the reign of Valens, A.D. 371.

"We constructed, illustrious judges, this ill-omened little table which you see before you, out of twigs of bay tree, under direful auspices, after the pattern of the Delphic tripod. And after it had been consecrated according to the rites prescribed, by the repetition of mystic verses over it, and by many and tedious ceremonies, at last we put it in motion. Now the method of using it whenever it was consulted on matters of secrecy, was the following:—It was placed in the middle of the house (which had been previously purified by burning Arabian incense in all parts), with a round dish placed purely upon it, which was composed of various metals combined together: on the outer edge of the rim of this dish the twenty-four letters of the alphabet were skilfully engraved, at equal distances from each other. Then one of us clothed in a linen garment, with linen slippers on his feet, a fillet round his head, and a branch of a fruit tree in his hand, stood over this tripod according to the mystic science, having first propitiated by the proper form of incantation the deity that is the author of the knowledge of

It may be observed here that the mysterious words "Aïla Kar" are either Sclavonic—a language often appearing in the oracles of Byzantine date (see that given by Procopius as predicting the death of Mundus and his son)—or else they may contain the Greek numerals giving the date of the event foretold. This took place A.D. 378, for Valens having been wounded by an arrow in a battle with the Goths, was carried by his officers into a cottage near the field, the door of which the enemy not being able to force piled straw against the building and consumed it, with all who were inside.

This mode of divination is now degraded to the humble office of ascertaining the time of day: a wedding ring, or a coin suspended from a thread passing over the ball of the thumb, and held within a glass tumbler, the hand being supported steadily about a foot above it, soon begins to vibrate from the action of the pulse, and the strokes against the inside of the glass will be equal in number to the nearest hour, whether past or coming. I have myself tried this experiment, and often found it to succeed in a most extraordinary manner.

THE TOAD-STONE.

A notion prevailed, both in the Middle Ages and down to a recent period, that

" the toad, ugly and venomous,
Wears yet a precious jewel in his head."

Camillo Leonardo describes the stone under the names of Borax, Nosa, and Crapondinus, and as being found in the brain of a toad newly killed. He says that there are two kinds, the white, which is the best, and the dark of a bluish tinge, with the figure of an eye upon it: and if swallowed, it is a sure antidote against poison, in its passage through the

Pliny, however, says nothing of its being found inside the toad, nor does he mention its medicinal virtues; but the name alone was sufficient to induce the fertile imagination of the mediæval doctors to invent all the other particulars. He does indeed specify several gems as being found inside various animals: such as the Bronte in the head of the tortoise, and supposed to have the property of extinguishing fires caused by lightning; the Cinædia in the head of the fish so-called, a transparent stone, which by its change from a clear to a turbid colour foreshewed a coming storm at sea (a useful marine barometer); the Chelonites of a grass green colour, and found in a swallow's belly, which being set in an iron ring possessed wonderful power in magic; the Draconites, a brilliant white gem, which must be cut out of the head of the serpent when alive, otherwise it loses its lustre, for which reason the Indians strewed the ground with an opiate, in order to catch the dragon asleep and so safely extract the prize;* the Hyænia existing within the eye of the hyæna, and which placed under the tongue conferred the gift of prophecy; and lastly, the Saurites procured from the bowels of a green lizard, dissected by a knife made of a sharp reed. The Scorpious and the Echites (Viper-stone) are praised as antidotes by Orpheus:—

* Philost. III. 8. "These dragons are taken thus: having woven letters of gold into a scarlet robe, they lay it before the den; but first of all magically infuse a soporific power into these letters by which the dragon has his eyes overcome, having no power to turn them away. They also sing over him many charms of their mystic art, by which he is drawn forth, and putting his neck out of his den falls asleep upon the letters. Then the Indians falling

upon him as he lies, cut off his head with their axes, and make prize of the gems within it, for in the heads of these mountain-dragons are secreted gems bright-coloured to the eye and reflecting all kinds of hues, of virtue moreover indescribable like the famous ring of Gyges. Often too does the dragon seize the Indian, axe, charm, and all, and escape with him into his den; all but making the mountain tremble."

1. The 'Apistopistus' of Macarius (Canon L'Heureux), with Appendix by Chifflet, 1610; an excellent and rational work for so early a period, treating exclusively of Gnostic gems, with a profusion of admirably engraved plates of the intagli. It contains everything that can be discovered in ancient writers relative to this mysterious subject, and is much more intelligible than Matter's 'Histoire Critique du Gnosticisme,' which treats upon the same class of representations, although he appears to have borrowed largely from Macarius. The plates of the intagli are very correct, and though so early may be reckoned among the best of the kind, having been drawn from the originals by Jacques Werde, a military engineer and a clever draughtsman, with a taste for antique art.

2. Mariette's 'Pierres Gravées' is a description of the best gems in the French Collection. The Introduction contains a large amount of useful information with respect to gems and the processes of the glyptic art, together with a clear and complete summary of all that is known about the most eminent gem-engravers of all countries who have flourished since the Revival. Mariette, however, does not appear to have possessed much practical acquaintance with gems themselves, and often makes many assertions that cannot be substantiated; but in spite of this defect, his book is the best manual that I have met with. Another recommendation of the book is the great number of plates of gems contained in it, which however are too much in the loose and flowing style of the last century (published 1750) to give a very accurate idea of the originals.

3. Winckelmann's 'Catalogue of Stosch's Gems' is doubtless the best work on the subject ever written, as far as the plan allows; for in addition to a most learned and interesting elucidation of the subjects of the intagli, he incidentally gives

more information relative to the science itself, so that it was not a dry catalogue, but rather a series of dissertations on matters relating to art, history, and antiquities. It is of the utmost value to the collector of gems, in consequence of its containing so extensive a series of subjects. He had admitted into his collection not mere antique pieces, but also modern ones of all the celebrated masters existing in other cabinets, to make his list of representations as complete as possible. Hence any uncommon design that may occur on a gem will be likely to find an explanation in Winckelmann's description of something similar or amongst the endless varieties brought together by Stuck.

4. *Maure's 'du Diamant'* gives brief but very clear descriptions of the various kinds of precious stones in use at the present day.

5. *Cavali's 'Recueil d'Antiquités'* is valuable for the numerous engravings it gives of antique rings in all metals very accurately represented by the pencil of that enthusiastic antiquary himself. But the camei and intagli, of which he presents many plates, are somewhat roughly executed and his explanations of them often erroneous; but yet, from the great variety of subjects described, they are still of considerable value. Many of his drawings of gems are of great interest, as representing stones still preserved at the time he was writing (1738) on the old plate and jewellery of the sacristy of Troyes Cathedral.

6. Lessing's '*Antiquarische Briefe*' contain a series of dissertations on various branches of the glyptic art, full of

¹ A very unpretending old-fashioned book. Binsley's '*Useful Knowledge*,' gives in its third volume the best popular description of stones and minerals of any that have ever come in my way.

formation conveyed in a most amusing and piquant style, in the form of criticisms on a work on gems published by an unlucky pretender, Dr. Klotz, whose ignorance he playfully exposes, displaying at the same time his own knowledge. More may be learnt from these letters, by the student of this science, than from any author I have met with, always excepting Winckelmann, who however deals more with the subjects of the gems, whilst Lessing treats more of the technical portion of the art, so that the two combined form a complete manual for the amateur. As might be expected in a German author, Lessing displays now and then some very odd crotchets, apparently recommended to him by their very absurdity, as for instance when he derives the name *Cameo* from *gemma onychina*, and a few similar flights of imagination.

7. The 'Catalogue des Artistes de l'Antiquité,' by the Count de Clarac (1848), contains, in the Introduction, a very good sketch of the history of the art, as well as useful remarks upon the mechanical processes employed in it. His list of artists' names is of great value, as he gives a minute description of the gems bearing their signatures, and specifies the collections in which they at present exist, thus supplying a safeguard against copies.

8. Raspe, 'Catalogue des Impreintes des Pierres Gravées.' After Stosch's death in 1757, Tassie, a London gem-engraver, obtained all his sulphur casts, and from these made sets of glass pastes. These are in truth very poor, both in colour and in finish, and bear but little resemblance to real stones. The total number of antique and modern amounts to 15,833. They are catalogued and described by Raspe, whose remarks are usually very sound and of great utility to a collector; and the arrangement of his matter is very convenient for reference. The plates are however so badly executed and incorrect,



Leath. in a Monument: Cameo. Onyx.

APPENDIX.

Instruments of the ancient Engravers, p. 107.

IN the earliest attempts to engrave figures upon stones to be used as seals we may conclude from the common analogy of such processes that the tools first employed were the splinters of flint or Obsidian of which all their other cutting implements were formed, and which continued, long after the use of metal had become general, to furnish the cheaper and easily-lost class of articles, such as arrow-heads, &c. The words of Herodotus describing those of the Ethiopians in Xerxes' army are, "arrows headed with a stone brought to a point, the same sort by means of which they engrave their seals." Now, inasmuch as every art known to this barbarous people must have been introduced among them from their neighbours the Egyptians, and all remains both small and great in Ethiopia plainly discover an Egyptian origin, their signets, likewise, could hardly have differed from those of their instructors in all the arts, as innumerable specimens sufficiently prove. Hence we may conclude that all the scarabs so plentiful in Steaschists, Syenite, and other soft stones, were worked out by means of flint-flakes fashioned into rude graving tools and mounted in handles, as the diamond-splinters subsequently were. In addition to this instrument the softness of the stones worked upon would allow the engravings to be executed by means of a narrow bronze chisel, which an examination of the cutting of the intaglio will often indicate as the sole tool employed, the lines and hollows having evidently

Babylon the transition of the discovery was rapid, and thence, through the Phenicians, it became diffused throughout Asia Minor.

All the operations hitherto considered were effected upon the surface of the intended signet by a scratching out or filing into the substance—the *sculptura* of the Roman writers. The exact mode of applying the piece of emery has, unluckily, not been handed down to us by any author. Theophrastus, in the chapter just quoted, says, “And again, the stone with which they engrave signet-stones is the same as that of which whetstones are made, or similar to it, and the best is brought from Armenia.” This very chapter (44), in which he had given some details as to the process, is unhappily one of the most defective in his treatise; but he appears to express his surprise that the material in question was capable of being split up and shaped by a steel tool and yet could bite on a gem that steel would not touch. Pliny (xxxvi. 10) has, “For polishing marble statues, and even for engraving and filing down gems, the Naxium (emery) long held the first rank: thus are termed the whetstones (*cotes*) produced in the isle of Cyprus. Afterwards those brought from Armenia bore away the palm.” Again (chap. 47), when enumerating the whetstones used for steel tools, he mentions the Naxian as the most in repute of those used with water, until afterwards surpassed by the Armenian. Again (in xviii. 67, § 5) he speaks of these water-whetstones acting upon the scythe-blade after the manner of a file. Dioscorides, writing in the first century, says, the “Smyris is a stone with which gem-engravers polish their gems.” He also speaks of “the substance rubbed off a Naxian whetstone from the steel sharpened against it” (v. 165, 167); all showing the use of a piece of emery to sharpen steel tools. All these expressions demonstrate that the emery—still the chief export of Naxos—was employed in gem-cutting—not merely in powder, as at present, applied to the point of a drill—but in a solid piece, shaped into a convenient form, and working after the manner of a file upon the gem. Another reason this for the ancient preference for highly convex ring-stones, a form to which anything in the shape of a file could be much more conveniently applied than to a plane surface. The use of the diamond has

in the use of this implement. In the cylinders, indeed, the perforations are of considerable size to admit the soft and thick cord that tied them round the wrist, but the holes through the seals are often fine as a thread, and drilled with an evenness that it would puzzle the best German lapidary to equal. The same may be said of the holes traversing the Etruscan scarabs, usually very accurately and truly bored. As before observed, the intagli also upon these scarabs are entirely sunk by means of a blunt drill ending in a hemispherical point. The hollows made by this button sunk to various depths, and brought into contact or overlaying each other, produce the rude figures of men and animals that adorn fully three-fourths of the scarabs termed Etruscan; and but rarely in this class is the outline assisted by the use of the diamond-point or any such *scratching* instrument.

As regards the action of the drill, the metal point does not immediately come in contact with the gem, but serves as a vehicle in which the excessively hard particles of the emery imbed themselves, and thus present a perpetually renewed cutting surface to the stone on which it is brought to bear. This is the meaning of Pliny in saying that "some stones cannot be cut at all by steel, others only by a blunt steel tool (though all can by the diamond); in the latter, however, the rapid revolution of the drill is of the greatest efficacy" (xxxvi. 76). The Phenicians learnt the art from their Assyrian masters, and soon diffused it, with its processes, through all the regions where they had colonies. This nation, placed midway between the two great foci of civilization, and in constant communication with each, lost no time in adopting every discovery amongst either people that recommended itself to their taste, and thus we find them adopting the form of the scarab from the Egyptians, but the hard stones to cut them in from the Assyrians, together with the superior style of intaglio which the newly-discovered method had enabled the latter to produce. Hence was communicated both the form of the signet and the means of engraving it to the Etruscans, unless we suppose—which is more probable—that the predominant caste introduced these, with other arts, from Asia Minor when they first settled as colonists in Central Italy. These drill-worked intagli must have been finished off with the

—where it encircles a king's head with flowing hair and long beard—a portrait of the customary Arsacid type—but the name as yet undeciphered. The extreme rarity of gems of this dynasty has been already noted. Another example, however, I have lately discovered among the Herz intagli—a Sard with a regal portrait, but of the rudest work.

The second form of alphabet is found holding the inferior place in the inscriptions of Nakshi-Roustan; and is exclusively adopted on the coinage of Sapor I. and his successors for some centuries. This is the character also by far the most common upon the gems. Thus it is used on the famous Devonshire Amethyst of Sapor I., as well as upon a Sard of nearly equal size and merit, a bust of Hormisdas, now in the possession of Mr. Bööcke.

The third and latest form of the Pehlevi alphabet is the parent of the old Syriac, and of its modification the Cuphic. As the latter took its name from the fact of its having been adopted by the transcribers of the Koran at Cupha in Mesopotamia it is a natural inference that it was the usual cursive writing of the age and country, and adopted by the Arabian conquerors, who, up to that time had possessed no literature or alphabet of their own. So slight is the difference between the letters used on the coinage of the last Sassanian kings and that of the first caliphs, who continued the old types for some years after the conquest, that Longperier reads the names of Sarparaz, Pouran, and Zerni, in the very same legends explained by Thomas as giving those of Omar, Farkhan, and Hani, in the usual Cuphic character.

This *third* alphabet is a modification of the second, produced by running the letters into each other, after the modern Oriental fashion, and appears on the coins of Chosroes and his successors. *Gems* with legends in this letter are common enough; and in all that have fallen in my way I have observed that the inscriptions round the royal portrait all begin with the characters for AP, usually read as Apad, or Afzud, the "Most High," a title first assumed on his medals by Chosroes I.

From the discoveries made in the topes of Cabul it is ascertained that, concurrently with the usual Sassanian coinage, another was issued in or for the Indian provinces of their em-

pire, with its legends in the Bactrian Pali letter, but of *this* no traces, to my knowledge, have ever been observed upon the seals bearing the heads of these sovereigns.

Beryl, p. 38.

An antique paste of this Taras is described by Winckelmann, who was unacquainted with the gem itself, then in the Praun Collection. One of the rare instances this of the preservation of the original and of its ancient copy.

Coldoré, p. 268.

I have seen this summer (1860) a bust of Henri IV. by this artist: a three-quarter face intaglio on a large octagonal pale Sapphire. On the section of the shoulder is the usual signature, C. D. F. The likeness is admirable, and full of spirit; the execution perfect: and the intaglio highly polished within. Taking into account the quality of the stone and the excellence of the work this gem may be ranked amongst the finest of the Renaissance.

Iron Rings, p. 284.

Iron rings were long worn by the Romans—"ut virtutis bellicæ insigne." Pliny (xxxiii. 4), after stating that the use of gold rings was first brought into Italy from Greece, expresses his surprise that the statue of Tarquinius Priscus should be represented without this ornament, seeing that his father Demaratus was a Corinthian. But it may be observed, that if the tradition be true that Demaratus was banished from Corinth by Cypselus, B.C. 660, there is good reason to suppose that finger-rings were as yet unknown in that city.² For many ages, however, not even the Roman senators wore gold rings in private

² Lessing boldly asserts that they were not used in Greece before the times of the Peloponnesian War: but this is merely to support a paradox.

life; they were given by the Treasury to such as were despatched as ambassadors to foreign nations, as a mark of distinction, nor could any others wear them except those thus commissioned by the State; and even these only put them on in public; at home they continued to wear their old signet-rings of iron. Even when they rode in triumph they were not permitted to assume this, it would seem, exclusive privilege of an ambassador, but, like Marius, had on their finger a ring of iron, just as the attendant slave. This general never wore a gold one until his third consulship—having probably served the office of ambassador in the mean time. As a relic of ancient usages the bride's betrothal-ring, in Pliny's time, was of iron and without a stone. One such has come under my notice, found at Rome. Its head was formed as two clasped hands, the whole strongly plated with gold, and its antiquity beyond suspicion. The ancient Latin name for a ring was *ungulus*, a diminutive of *unguis*; perhaps because its bizzel covers the third joint of the finger in the same way as the *nail* covers the first.

It has been already remarked that the earliest gold rings are invariably of thin and hollow metal. Amongst the numerous restrictions laid upon the Flamen Dialis, Fabius Pictor (quoted by A. Gellius, x. 15) states, "*item annulo uti nisi pervio cascoque fas non est*"—he must not wear a ring that has not a hollow shank—*cassus* properly signifying a hollow shell, like that of a rotten nut.

The jewellers of the Cinque-Cento have lavished as much taste and labour upon the chasing and carving of rings in steel and bronze as upon those in the precious metals. It may be that the very worthlessness of the material has saved these from the melting-pot, to which the changes of fashion have remorselessly consigned the most exquisite specimens of those possessing any intrinsic value. Certain it is that many in steel now preserved surpass in originality of design and elaborate beauty of chasing any similar gold ornaments of the same date. Exquisite examples of such, as well as in bronze, met my eye in a magnificent collection of ancient rings of all periods formed at Vienna and lately acquired by Lord Braybrooke.

which are called Betuli; the long sort, according to him, being named the Ceraunias. They make out also a third variety, excessively rare, and much sought after by the Magi, since it is only found in places that have been struck by lightning" (Plin. xxxvii. 51). It is a strange coincidence that in the present day the popular German name for the stone-axes of the Celtic period is "donner-keil," or thunderbolt, which they also believe are only found in places struck by lightning, and to be a remedy for all diseases in cattle. Probably these primeval stone-axes continued long to be used by the Romans in their sacrifices as a relic of ancient religious usages. We find that in the ratification of a treaty the contracting parties killed the victim, a pig, with a flint—"silice percussit." From the very nature of things, and the tenacity of life in the animal operated upon, this "flint" could not have been a mere stone, casually picked up, but must have been sharpened and fitted to a handle, so as to be capable of dealing at once a mortal blow. Hence the saying, "Inter sacrum et silicem stare"—to be in harm's way—i. e. standing between the victim and the descending weapon of flint.

Magic Sigils, p. 444.

Thetel Rabanus says that "the sigil of a man with a bundle of herbs on his neck, if found on a Jasper, gives the power of distinguishing diseases and stops the flow of blood from any part. This stone Galen is said always to have carried about with him."

Among the sigils of Solomon we find, "Head, with neck, cut on green Jasper, set in a brass or iron ring, engraved with the letters B. B. P. P. N. E. N. A. Wear this and thou shalt in no wise perish, but be preserved from many diseases, especially ague and dropsy. It likewise gives good luck in fowling. Thou shalt also be reasonable and amiable in all things; in battle and in lawsuits thou shalt be victor. It helps women in conceiving and in childbirth; it gives peace and concord and many good things to the wearer, but he must do so in all justice and honesty."

number (528) in a single morning: first premising that my judgments upon them are subject to the drawback and the amount of unavoidable inaccuracy arising from the circumstance of having to examine gems that could not be held against the light, nor yet were accompanied by casts, the only compensation possible for such a disadvantage.

To commence with those inscribed with names (supposed of artists), in which the cabinet is singularly rich: the actual inspection here of several quoted in Clarac's list has enabled me to rectify his notices, copied as they were from various authorities at second-hand.

No. 1. Theseus standing, regarding his father's sword; a glorious intaglio on a large red Sard; has the name KASCAE divided on each side of the figure, in the huge bold lettering used on the bronze coinage of the last times of the Republic and of the early Cæsars; and most decidedly denoting the owner's name, perhaps the "envious Casca" himself, for the work is that of his times—the mature Greek style just entering upon its Roman phase.

No. 27. The M. Aurelius, ascribed to the *artist* Æpolian, shows by the magnitude of the lettering of the name, as well as by its Latin form, that it merely designates the owner; doubtless some official of that prince, for imperial portraits, accompanied by private names, are sufficiently abundant to warrant the conclusion that such an adjunct does not necessarily denote the engraver; which theory alone must have been the grounds for enrolling Æpolianus in the list of ancient Roman artists.

No. 23. The Achilles Citharædus of Pamphilus is an antique ruby paste, a cast from an intaglio of considerable size, worked out in a style manifesting much of the Greco-Italian feeling; the same delicate touch, careful detail, and flat relief, marking the entire composition: differing greatly from the purely Roman manner of the Cupid and Psyche, ascribed to the same engraver, among the British Museum gems. There is, however, a wonderful resemblance in the appearance of the signature upon both—the characters in each equally minute and elegant.

No. 32. The "Diomedæ Master of the Palladium," by Gneus;

No. 14. Also a glorious group, on red Sard, Scylla destroying a Mariner, but of the best Roman style.

No. 5. This is one of the few exceptions to the rule that picture-like compositions never do occur on antique intagli; for it gives a group of no fewer than six persons, backed by the façade of a temple: a veiled and seated female, attended by a maid and boy, listening to an aged man and a warrior; the design closed by a youth holding a cornucopia. The work, as well as stone (a fine and large Sard) have all the appearance of antiquity. This gem merits particular attention, both for the rarity of the subject, and as an admirable example of Imperial Roman art.

No. 28. A seated Victory chained and struggling to rise, her hands bound behind her back, is remarkable for the truth of the action, and the vigour and depth of the engraving. A large, brown Sard.

The foregoing were selected almost at random from the class of Mythological subjects: but to pass on to the other divisions, we find the series of imperial portraits to include some unrivalled examples. Here, as in many of those above quoted, the dimensions of the gems are especially noteworthy, considering the small size of the mere signet stones to which truly antique works are generally confined. These, therefore, from their importance, must have served some special object, and have commanded for their execution the utmost artistic powers of the age that produced them.

The list may be headed with (52), Head of Augustus, treated in the Greek manner, in flat relief, upon a splendid red Sard. Of great merit, also, is the rarely-seen portrait of his successor, but taken when still a young man, on brown Sard, of very large size (196). Two heads confronted, the youthful Caligula and his Mother (38), on the same kind of gem as the last, is also full of life and expression. A smaller head of this prince, from the very peculiar treatment of the hair (expressed by semi-circles), seems to proceed from the same hand as the head (of him as Mercury) in Stosch's Collection, and that figured at page 176.

It may here be noticed that, by a singular coincidence, the Bacchante (30) appears identical in style and execution with

in this department, we may notice a bust of Commodus (488): a good portrait, though already displaying the stiff manner of the decline; but the Onyx, of extraordinary quality, its strata rendering the hair in brown, the flesh in a pearly white, and the field transparent; the whole enclosed in the usual reserved rim. A Vintage-scene: a satyr lifting a nymph on his shoulders to gather the grapes, is well drawn, and singular as being cut in relief upon the Peridot, probably an unique example. Another rarity is an antique gold ring of elegant form, set with a minute cameo, a seated Cupid; to be added to the scarce instances already quoted of such works actually found employed in ancient jewellery.

Worthy also of special notice are the works of the Renaissance here exhibited: some for beauty, others for their historic interest. Of these, the earliest and most important is a large oval crystal, about 4 inches wide (390), inscribed with the name of Giovanni del Castel Bolognese; the subject—a lion hunt—consisting of many figures; in the background, a triumphal arch. The intaglio is shallow, of the highest finish and internal polish; the drawing stiff from its very correctness; and the whole a masterpiece of that early period, and the most characteristic example of the school that I have ever met with. The same remark applies to (483), also a Crystal of the same date and of considerable size, a Venus and Cupid, but the drawing more free than in the preceding; and though uninscribed with any name, probably due to Valerio Belli, being altogether in his style. All lovers of works that stand as it were authenticated landmarks in the history of art, will view with the same interest as I did (on its unexpected discovery amongst these treasures), the very medallion of Hercules and Antaeus, a gold chasing *appliquée* to an oval field of Lapis-lazuli, made for one of his patrons by Cellini himself, and respecting the process of executing which he gives full details in his 'Orifeceria.'

A magnificent cameo of his age is the Judgment of Paris (368), on an immense single-coloured Onyx; the grouping of the three principal figures is admirable, and extraordinary skill is manifested in the one detached, the Juno unrobing herself, her back being turned to the spectator.



Fauns playing. Nicolo.

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